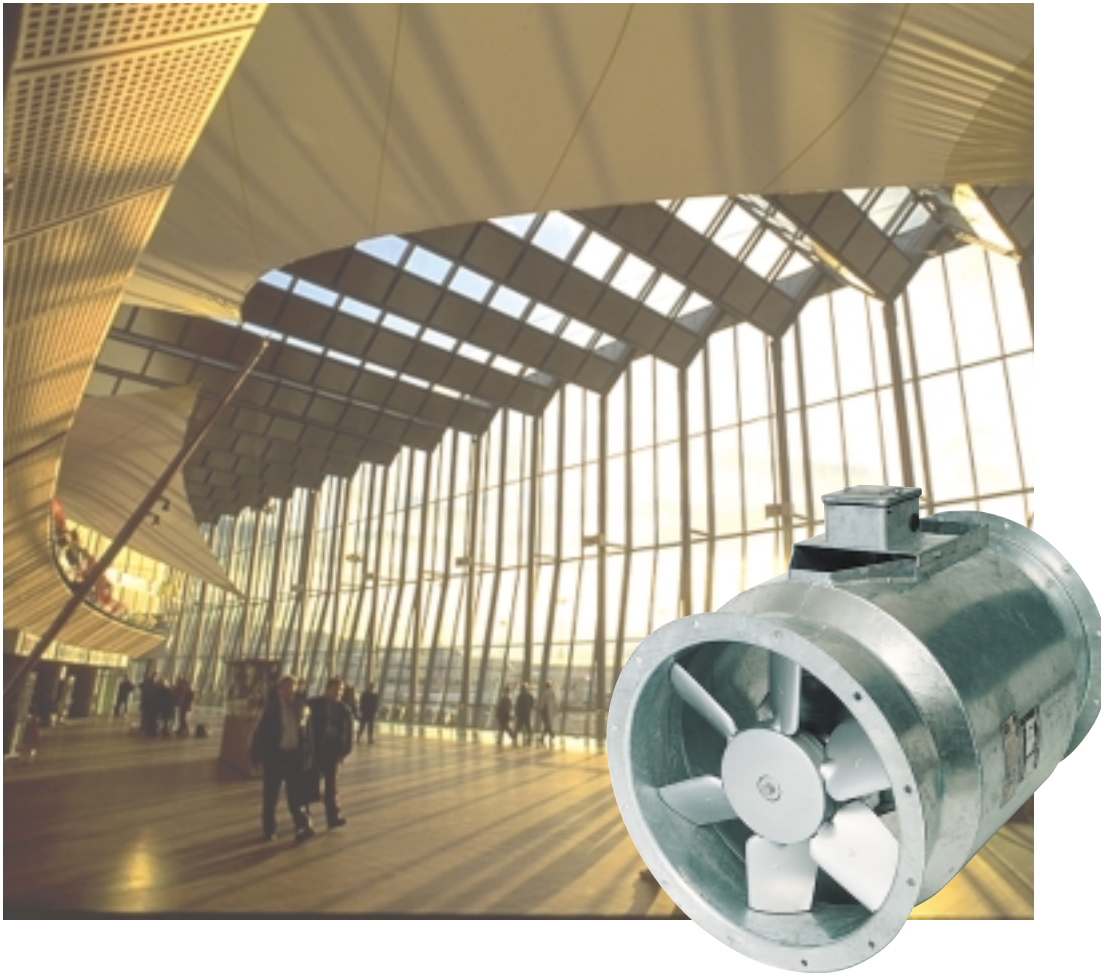


## *JM Aerofoil Bifurcated 50Hz*



AIRTREND Limited  
Predstavništvo u Beogradu  
Kumanovska 14, 11000 Beograd  
Tel: 011/3836886, 3085740  
Faks: 011/3444113  
e-mail: [gobrid@eunet.rs](mailto:gobrid@eunet.rs)  
web: [www.airtrend.rs](http://www.airtrend.rs)

**FläktWoods**



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## INTRODUCTION

Woods Air Movement Limited has made Axial flow fans for specialist applications and arduous environments for over 80 years.

As an acknowledged leader within the industry we have developed a series of bifurcated cased axials, utilising the improved performance JM Aerofoil range and taking into account the two most important factors to be considered - safety and economy.

All fans are of the highest quality, built to the latest British and International standards, and incorporating motors rated in accordance with BS5000 Part 99 and IEC 34-1.

This catalogue details the range of pre-designed products available with a Bifurcated casing. Other product variants are available on an individual order basis, please enquire of your local sales office if extra information is required. (For details visit [www.woods-fans.com](http://www.woods-fans.com)).

### The JM AEROFOIL Bifurcated Range

#### JM

This catalogue contains the complete range of JM Aerofoil Bifurcated fans, either for +80°C or +200°C continuous operation, from 400 mm to 800mm diameter. The impeller pitch angles are factory set to individual performance requirements.

#### JM Series 33

This is our range of small bifurcated fans and consists of 150mm, 250mm and 300mm diameters for temperatures of 200°C.

For our range of continuous operation high temperature smoke clearance bifurcated fans please see Fans in Fire Safety catalogue ref: C10 or contact your nearest sales office.

### OTHER BIFURCATED RANGES

#### Large Bifurcated Range

For higher duties there is our large J bifurcated fan 48" (1250mm) diameter. For full details please enquire at your nearest sales office.

#### Partnership Collection & Standard Range

The Partnership Collection and Standard Range are specific products available on fast lead times to satisfy your requirements. Details can be found in publication number PC/CORP.

### FANS AVAILABLE FROM WOODS AIR MOVEMENT

#### Axial Flow Fans -

for standard and smoke clearance applications

#### Roof Units -

for standard and smoke clearance applications

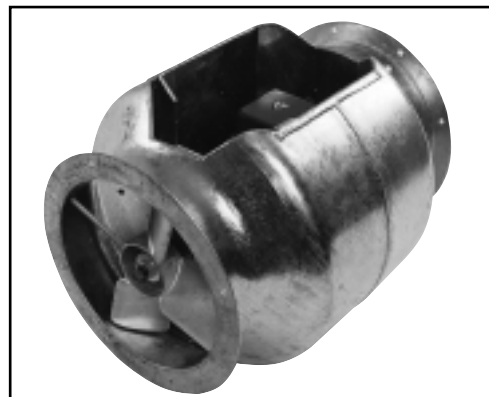
**Varofoil** - variable pitch in motion fans

**Centrifugal Fans** - industrial & commercial

**In Line Centrifugal**

**Mixed Flow Fans**

**Plate Mounted Fans**



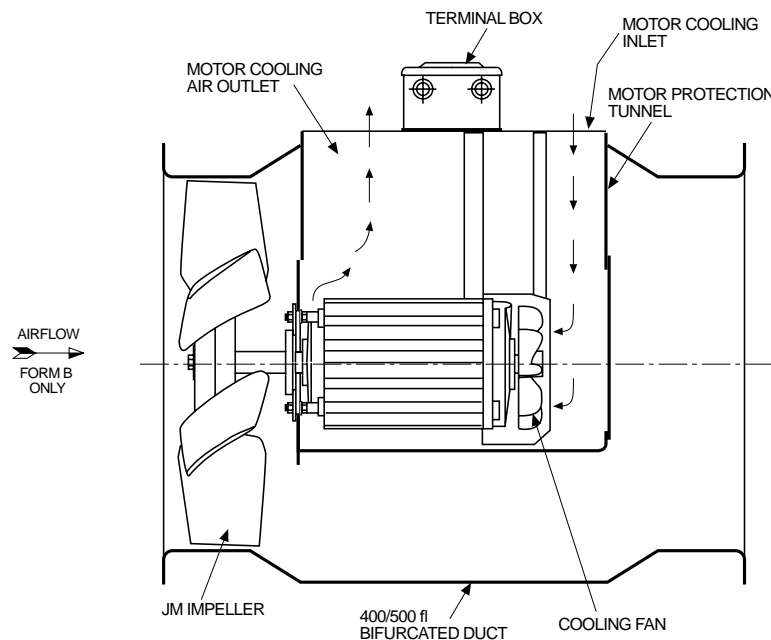
*Series 33 Bifurcated fan*

## APPLICATION

### THE JM BIFURCATED FAN

The JM Aerofoil Bifurcated fan has been developed to handle; wet or dirty atmospheres, hot gases, emergency smoke clearance, dust laden air.

The motor is isolated from the main air stream by a tunnel which extends to the side of the main fan casing only. The motor is cooled by air directly over its carcass by means of a cooling fan mounted on a shaft extension at the tail end. An air splitter in the tunnel separates the incoming cool air from the outgoing warm air. On sizes 400 mm to 1000 mm the mouth of the tunnel is spigotted so that an extension duct giving access to normal atmosphere can be fitted in cases where the fan is mounted inside equipment, such as a drier, where air is required from another area lower than ambient for motor cooling.



### TYPICAL APPLICATIONS

#### Temperature Range

Different sizes of fan are rated for different maximum temperature as in the table below:-

	Maximum Temperature		
	80°C	200°C	320°C*
150 - 300 mm		X	X
400 - 1000 mm	X	X	

\*Special - made to order only

#### Mists and Condensation

The Bifurcated fan is capable of handling mists up to 100 % relative humidity. When there is a danger of vapour condensing out in the fan duct 150 mm to 500mm diameter fans should not be mounted horizontally due to their case design. All ducts should be laid to a slight fall to facilitate drainage.

#### Dusts

Where there is a danger of dusts building up around the motor of a standard axial fan the

Bifurcated fan eliminates this problem with its motor out of the airstream. Care must be taken to maintain minimum velocities for the conveying of dusts in the air stream. (If the dust causes a change from standard air density (1.2 kg/m<sup>3</sup>) please refer to your nearest sales office).

#### Flammable Gases

With the additional fitting of a spark minimising impeller track, the fans are suitable for Group 2A and 2B gases. The fan must be mounted outside of the hazardous area. The shaft seal must be correctly maintained.

#### Corrosive Chemicals

The Bifurcated fan is suitable for some mild chemicals that will not corrode the galvanised casing or the seal of the motor shaft through the case. Additional protection can be provided by an epoxy paint finish.

Please refer corrosive chemicals such as acids and solvents to ourselves where we can advise on the suitability of the fan.

## SPECIFICATION

### Motors

Constructed from aluminium as standard with special stud and pad mounting fixings. Suitable for horizontal through to vertical shaft operation.

Supplied IP55

Insulation is Class F, with Class F temperature rise.

Bearing lubricated with wide temperature range grease, relubricatable or sealed for life bearings dependant on size.

The motor is cooled by ambient air drawn into the tunnel which extends to the side of the casing, and is suitable for continuous operation for up to 40°C ambient.

### Speed Control

Woods do not offer speed control for the bifurcated fan by conventional electronic or auto-transformer speed control. This is due to the motor construction. For inverter drive applications enquire at Colchester.

### Starting

Standard three phase motors of 5.5 kW outputs and above are usually provided with Star/Delta starting connections.

### Electrical Supply

230 V +10/-6 %; 50Hz; single phase (1 $\phi$ )\*

400 V +10/-6 %; 50Hz; three phase (3 $\phi$ )

(60Hz and other voltages are available on request).

### Casings

The JM Aerofoil Bifurcated design is generally similar to a normal axial flow fan, but the motor is isolated from the main air stream by a tunnel which extends to the side of the fan casing.

The casing of the 150mm to 500mm diameter sizes have an enlarged bore located around the motor to permit adequate cross sectional area for air to flow round the motor tunnel. The 630 mm to 1000 mm diameter sizes have casings of constant diameter.

### Impellers

Small Bifurcated 150 mm - 300 mm

Cast aluminium silicon one piece with fixed aerofoil section blade.

Large Bifurcated 400 mm - 1000 mm

High pressure die and clamp plate, with equally spaced, fully adjustable, high pressure die cast section blades. All rotating aluminium components are X-ray examined prior to machining to

ensure quality.

Balanced to BS6861 Part 1 1987 (ISO 1940-1986) Grade G6.3.

### Ancillaries

Guards to comply with BS848 Pt 5. and draft ISO standards.

2 speed switch for Delta/Star reconnection

### Silencers

Mounting feet for both horizontal and vertical mounting

Matching Flanges.

Flexible Connectors.

Air Operated Dampers. \*\*

Bellmouth inlets. \*\*

Vibration Isolators.

### Finish

#### Standard:

The fan casing, mounting feet, matching flanges and guards are all hot dipped galvanised after manufacture, (in accordance with BS729:1971).

Motors, aluminium self finish, or painted to motor manufacturers specification.

#### Non Standard:

For more corrosive conditions the fans can be treated at extra cost with an epoxy paint finish.

The maximum temperature for this finish is +120°C (continuous).

#### Additional Extra Features

Epoxy Paint System Finish.

Non Standard Voltages.

Motor Thermistors.

Motor Thermostats or Thermal Switches.

Motor anti-condensation Heaters.

Spark Minimising Feature.

\* Available 150 mm - 300 mm only

\*\* Available 400 mm - 1000 mm only

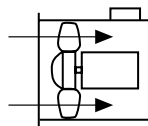
## FORMS OF RUNNING, TEST METHODS & QUALITY SYSTEMS

The direction of airflow through the fan and the mounting position are defined as the “Form of Running”.

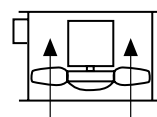
Woods only offer Form B running bifurcated fans as Form A fans have a marked loss in performance. For vertical operation add suffix “U” for airflow up, or suffix “D” for airflow down.

Arrows indicating correct rotation and the direction of air flow are incorporated on the fan duct nameplate.

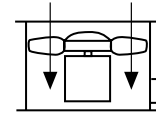
### Single Stage



Form B

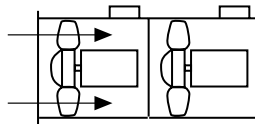


Form BU



Form BD

### Two Stage



Form B/B

For Two Stage selections, please refer your enquiry to a Woods representative.

### Testing

The air and sound performance data has been measured by the latest version of British and International Standards:-

ISO 5801 category D (fully ducted) method for testing air performance (supercedes BS848 Pt1 1980).

BS848 Pt 2 1985, method of noise testing.

It is essential, when comparing fan performances, that the same installation category and test standards are used at all times.

### Acoustic Data

The sound levels quoted are based on tests carried out under the Woods certified laboratory conditions. Using the spectrum corrections stated on each performance chart, an unweighted sound power spectrum can be obtained for the fan.

### Motor Ratings

The motor ratings, starting, full load currents and speeds refer to the maximum output of the motor. When the impeller does not require the full output, the power and current will be less than the maximum quoted.



*Anechoic Test Suite at Colchester*

### Quality Systems

Woods Air Movement are committed to Quality Assurance. Registered to BS EN ISO 9001.94, N.A.T.O. Quality Standard AQAP-1 Edn 3. BS EN ISO 9001.94 registration means that Woods design is quality assured as well as the manufacture.

Our commitment to Quality Assurance doesn't stop with the hardware. The performance data comes from standard tests carried out in Woods own laboratory which is BSI (CAME) and AMCA accredited.

A JM Aerofoil Bifurcated fan can be bought with the confidence, as with all Woods products, that it will achieve the published performance data and match the assured quality. All the Woods JM Aerofoils are fitted with IP55 motors as standard, and come with a 2 year guarantee.

## GUIDE TO FAN SELECTION

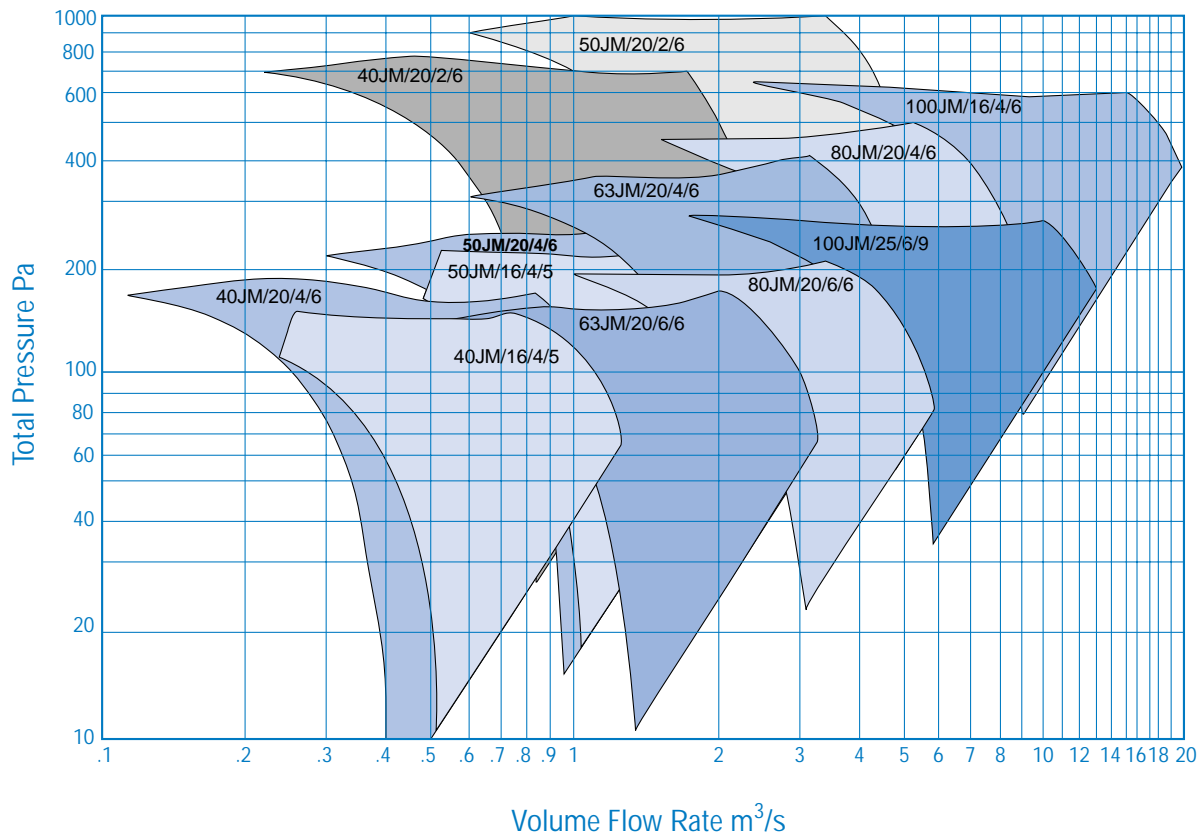
Within this publication there is all the information that you will require to make a full technical selection with fan, motor, electrical and acoustical details.

The method of selection is the same as the standard JM Aerofoil fan, as detailed in our publication JM/SS pages 10 to 13.

If you should require any further information or options that are not within this catalogue please contact your nearest sales office.

## PERFORMANCE

### JM Aerofoil Bifurcated Fans - 40JM - 100JM



## SERIES 33

### Fan Sizes 150 mm to 315 mm

The Woods Series 33 Bifurcated fan of steelplate construction exhausts or recirculates fumes, gases or air at temperatures up to 320°C. Two types are available for up to 200°C and up to 320°C. The fans are designed for continuous running while subject to that temperature. Standard sizes are 150 mm, 250 mm and 305 mm providing volumes up to 0.98 m<sup>3</sup>/s with pressures up to 490 Pa. The fan is direct drive by motor housed within its own compartment, isolating it from the airstream. Ease of access to the motor for maintenance purposes also makes the fan eminently suitable for the conventional axial fan's normal application.

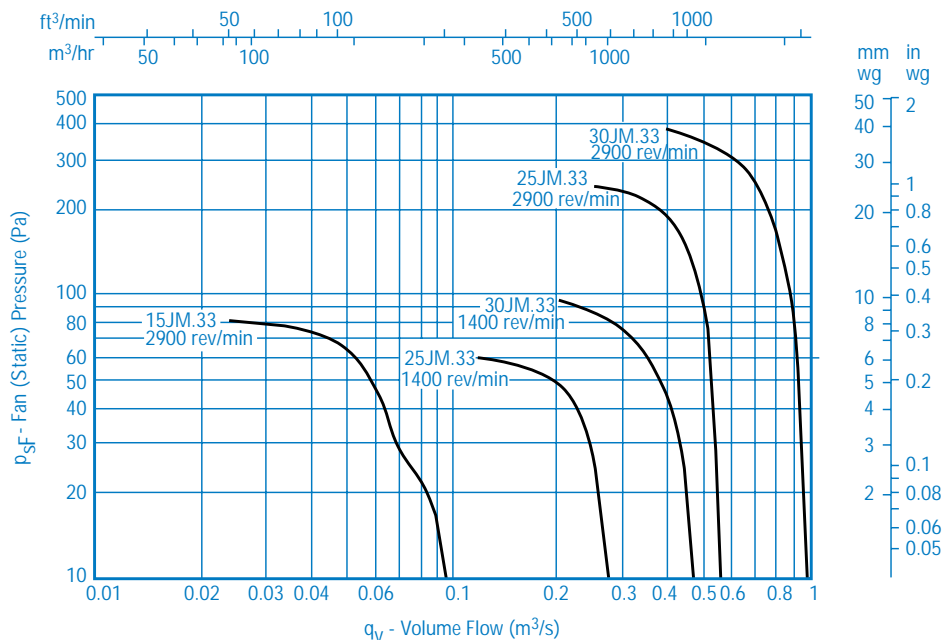
### Motors

All motors are totally enclosed fan cooled, Class F insulation with motor protection to IP54. All motors are supplied with sealed for life bearings. They are not suitable for speed regulation by voltage. Inverter control - please enquire.

### Electrical Data

Product Code	Speed (rev/min)	Motor	220-240 V / 50 Hz / 1φ			380-420 V / 50 Hz / 3φ			Sound Level dB(A)
			Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	
15JM.33	2900	D63	0.18	1.5	4				37
25JM.33	1400	D63	0.12	1	3	0.18	0.63	2.5	40
25JM.33	2900	D71				0.37	1.2	4.9	55
30JM.33	1400	D63	0.12	1	3	0.18	0.63	2.5	46
30JM.33	2900	D71				0.37	1.2	4.9	63

Sound pressure levels quoted are average dB(A) at 3 m distance over a sphere, based on form B running under free field conditions, and are presented for comparative purposes only. Cylindrical silencers are available as standard. Bifurcated fans are not suitable for speed regulation.



### Electrical Supply

220 V - 240 V 50Hz 1φ  
380 V - 420 V 50Hz 3φ

### Casings

All casings are hot dipped galvanised for long life and high resistance corrosion. A seal is provided on the motor shaft.

### Impellers

Cast in aluminium silicon alloy and has a fixed pitch aerofoil blade. This ensures strength, reliability and performance at high temperature.

### Temperature Range

Standard 200°C, made to order 320°C.

### Ancillary Equipment

Silencers, Mounting Feet/Plates, Vibration Isolators, Matching Flanges, High Temperature Flexible Connectors.



# JM AEROFOIL - BIFURCATED



## Motor Frame Size Schedules: 80°C Continuous

400 V / 50 Hz / 3 φ

Code	Speed rev/min	Max. Pitch Angle (°)	Motor	Motor Rating (kW)	Full Load Current (A)	Starting Current d.o.l. (A)	Efficiency %	Power Factor cos Ø
40JM.BIF/16/4/5/...	1440	<b>38</b>	<i>DA71MAC</i>	<i>0.25</i>	<i>0.8</i>	<i>3.5</i>	<i>66</i>	<i>0.69</i>
		40	DA71MAC	0.37	1.1	4.9	69	0.71
40JM.BIF/20/4/6/...	1440	36	DA71MAC	0.25	0.8	3.5	66	0.69
		40	DA71MAC	0.37	1.1	4.9	69	0.71
40JM.BIF/20/2/6/...	2950	18	F2225	1	2.6	15.2	73	0.76
		26	F2225	1.5	3.4	22	77	0.83
		<b>32</b>	<i>F2225</i>	<i>2</i>	<i>4.5</i>	<i>30</i>	<i>75</i>	<i>0.85</i>
		38	F2225	2.5	5.6	38	77	0.84
		40	F2225	3.1	6.6	44	78	0.86
50JM.BIF/16/4/5/...	1440	14	DA71MAC	0.25	0.8	3.5	66	0.69
		22	DA71MAC	0.37	1.1	4.9	69	0.71
		30	DA80MAC	0.55	1.5	6.7	70	0.76
		<b>38</b>	<i>DA80MAC</i>	<i>0.75</i>	<i>2</i>	<i>9.9</i>	<i>72</i>	<i>0.76</i>
50JM.BIF/20/4/6/...	1440	12	DA71MAC	0.25	0.8	3.5	66	0.69
		20	DA71MAC	0.37	1.1	4.9	69	0.71
		28	DA80MAC	0.55	1.5	6.7	70	0.76
		32	DA80MAC	0.75	2	9.9	72	0.76
50JM.BIF/20/2/6/...	2950	8	F2225	1.5	3.4	22	77	0.83
		12	F2225	2	4.5	30	75	0.85
		16	F2225	2.5	5.6	38	77	0.84
		18	F2225	3.1	6.6	44	78	0.86
		24	F2229	4.3	8.4	75	86	0.86
		<b>30</b>	<i>F2229</i>	<i>5.5</i>	<i>11.1</i>	<i>90</i>	<i>85</i>	<i>0.84</i>
63JM.BIF/20/6/6/...	935	30	F2265	0.55	1.7	7.6	65	0.72
		32	F2265	1	3	12.5	71	0.67
63JM.BIF/20/4/6/...	1440	12	DA80MAC	0.75	2	9.9	72	0.76
		16	F2245	1	2.4	14	80	0.75
		28	F2245	1.8	4.1	24	82	0.77
		<b>32</b>	<i>F2245</i>	<i>2.2</i>	<i>5</i>	<i>30</i>	<i>83</i>	<i>0.76</i>
80JM.BIF/20/6/6/...	935	10	F2265	0.55	1.7	7.6	65	0.72
		20	F2265	1	3	12.5	71	0.67
		24	F2269	1.3	3.9	13	74	0.67
80JM.BIF/20/4/6/...	1440	10	F2245	1.8	4.1	24	82	0.77
		12	F2245	2.2	5	30	83	0.76
		20	F2249	3.2	7	45	84	0.78
		22	F2249	3.8	7.7	45	84	0.84
100JM.BIF/25/6/9/...	960	18	DA132SAD	3	6.7	44	86	0.76
		24	DA132MAD	4	8.6	57	87	0.78
		30	DA132MBD	5.5	11.6	80	88	0.78
100JM.BIF/25/4/9/...	1470	8	DA132SAD	5.5	11	77	88	0.83
		12	DA132MAD	7.5	14.3	107	89	0.85
		20	DA160MAD	11	22.2	133	89	0.81
		24	DA160LAD	15	29	189	90	0.83

Standard Range products shown in italics

# JM AEROFOIL - BIFURCATED



## Motor Frame Size Schedules: 200°C Continuous

400 V / 50 Hz / 3 φ

Code	Speed rev/min	Max. Pitch Angle (°)	Motor	Motor Rating (kW)	Full Load Current (A)	Starting Current d.o.l. (A)	Efficiency %	Power Factor cos Ø
40JM.BIF/20/4/6/...	1440	<b>40</b>	<i>F2245</i>	<i>0.5</i>	<i>1.4</i>	<i>7</i>	<i>71</i>	<i>0.72</i>
40JM.BIF/20/2/6/...	2950	18	F2225	1	2.6	15.2	73	0.76
		26	F2225	1.5	3.4	22	77	0.83
		<b>32</b>	<i>F2225</i>	<i>2</i>	<i>4.5</i>	<i>30</i>	<i>76</i>	<i>0.85</i>
50JM.BIF/20/4/6/...	1440	24	F2245	0.5	1.4	7	71	0.72
		<b>32</b>	<i>F2245C</i>	<i>0.75</i>	<i>1.7</i>	<i>10</i>	<i>83</i>	<i>0.77</i>
50JM.BIF/20/2/6/...	2950	8	F2225	1.5	3.4	22	77	0.83
		12	F2225	2	4.5	30	76	0.85
		<b>24</b>	<i>F2229</i>	<i>4</i>	<i>7.8</i>	<i>75</i>	<i>86</i>	<i>0.86</i>
		30	F2229	5.5	11.1	90	85	0.84
63JM.BIF/20/6/6/...	935	30	F2265	0.55	1.7	7.6	65	0.72
		<b>32</b>	F2265	1.2	3.6	15	70	0.6
63JM.BIF/20/4/6/...	1440	10	F2245C	0.75	1.7	10	83	0.77
		16	F2245	1	2.4	14	80	0.73
		<b>30</b>	<i>F2245</i>	<i>2</i>	<i>4.5</i>	<i>30</i>	<i>83</i>	<i>0.76</i>
		32	F2249	3.5	7	45	84	0.84
80JM.BIF/20/6/6/...	935	10	F2265	0.55	1.7	7.6	65	0.72
		24	F2265	1.2	3.6	15	70	0.6
80JM.BIF/20/4/6/...	1440	10	F2245	2	4.5	30	83	0.76
		20	F2249	3.5	7	45	84	0.84
100JM.BIF/25/6/9/...	960	18	DA132SAD	3	6.7	44	86	0.76
		24	DA132MAD	4	8.6	57	87	0.78
		30	DA132MBD	5.5	11.6	80	88	0.78
100JM.BIF/25/4/9/...	1470	8	DA132SAD	5.5	11	77	88	0.83
		12	DA132MAD	7.5	14.3	107	89	0.85
		20	DA160MAD	11	22.2	133	89	0.81
		24	DA160LAD	15	29	189	90	0.83

Standard Range products shown in italics

# JM AEROFOIL-BIFURCATED

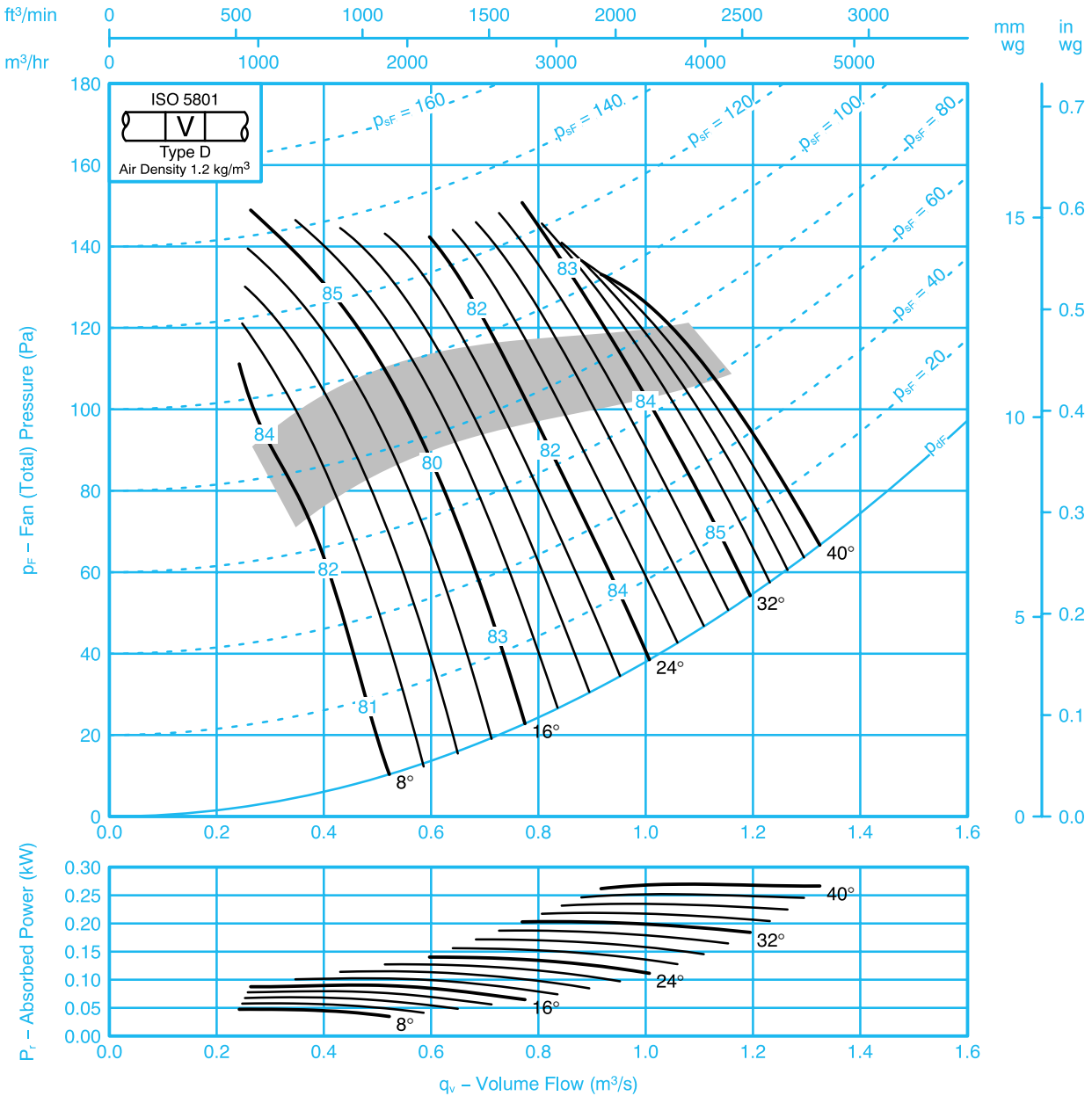


Fan Code: 40JM.BIF/16/4/5/...

400 mm 1440 rev/min 5 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-12	-6	-7	-5	-9	-13	-21	-27	8	-11	-7	-7	-8	-12	-15	-24	-29
	-16	-6	-10	-5	-7	-11	-18	-23		-12	-4	-10	-7	-9	-13	-21	-24
16	-13	-9	-6	-4	-10	-15	-23	-29	16	-12	-9	-8	-3	-11	-16	-24	-28
	-11	-3	-9	-8	-12	-13	-18	-21		-9	-2	-9	-11	-14	-16	-21	-24
24-40	-6	-5	-9	-9	-11	-14	-18	-21	24-40	-4	-5	-10	-10	-14	-16	-21	-23
	-7	-3	-9	-10	-13	-15	-20	-24		-5	-4	-10	-11	-15	-17	-23	-26

# JM AEROFOIL-BIFURCATED



BS 5750 Pt 1  
EN 29001  
ISO 9001

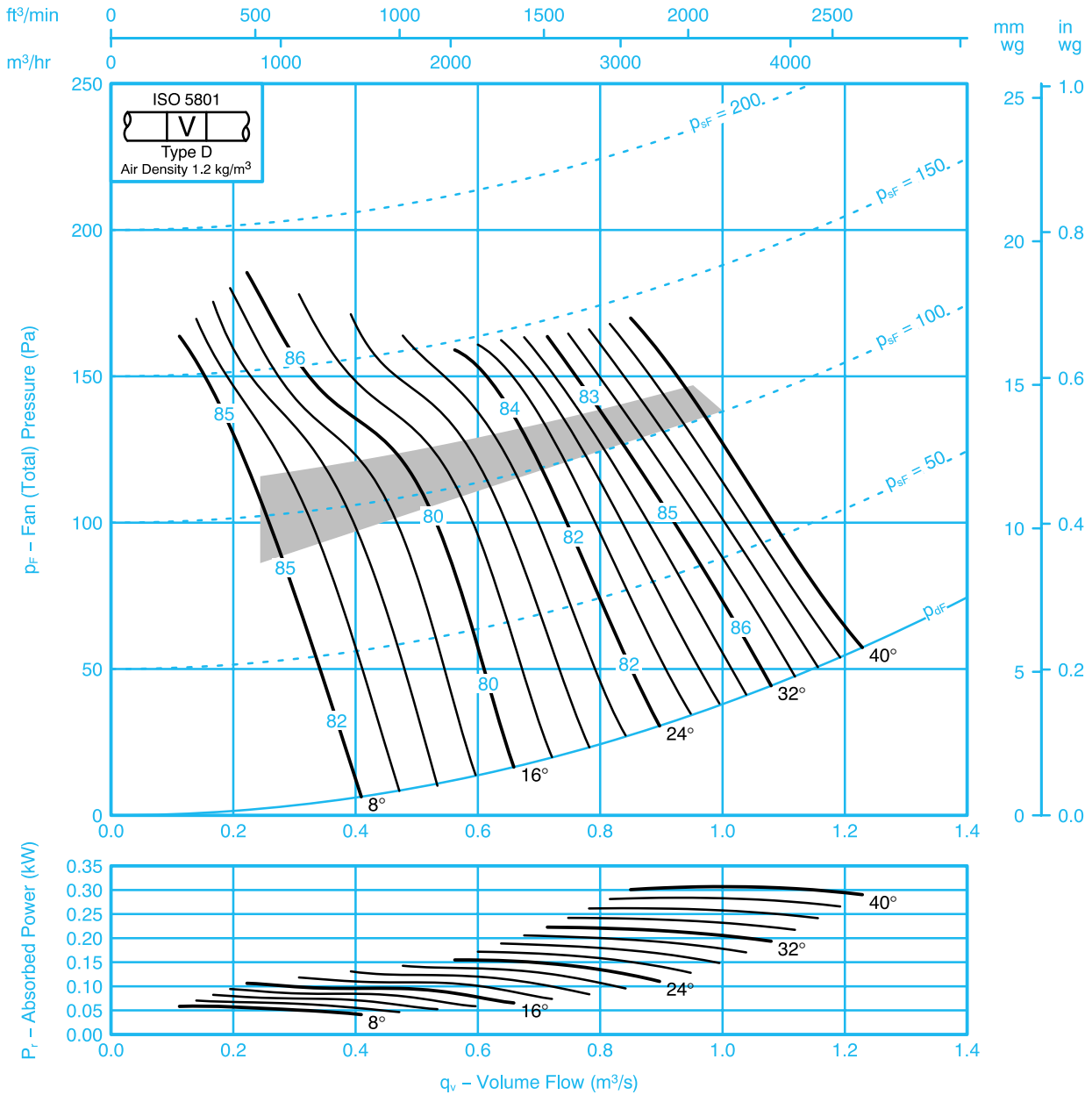
## Fan Code: 40JM.BIF/20/4/6/...



## 400 mm 1440 rev/min 6 Blades 50 Hz

### Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



### Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-19	-10	-6	-4	-7	-16	-23	-31	8	-19	-12	-9	-4	-6	-17	-25	-34
	-20	-13	-8	-4	-4	-13	-19	-26		-18	-13	-7	-4	-5	-14	-19	-26
16	-16	-9	-3	-7	-9	-15	-22	-28	16	-14	-6	-7	-6	-8	-15	-21	-28
	-14	-5	-5	-9	-9	-14	-18	-22		-12	-4	-9	-9	-8	-14	-18	-23
24-40	-8	-6	-5	-10	-11	-16	-19	-23	24-40	-7	-5	-7	-10	-11	-17	-19	-23
	-9	-4	-5	-12	-12	-18	-21	-26		-8	-3	-8	-11	-12	-18	-21	-27

# JM AEROFOIL-BIFURCATED



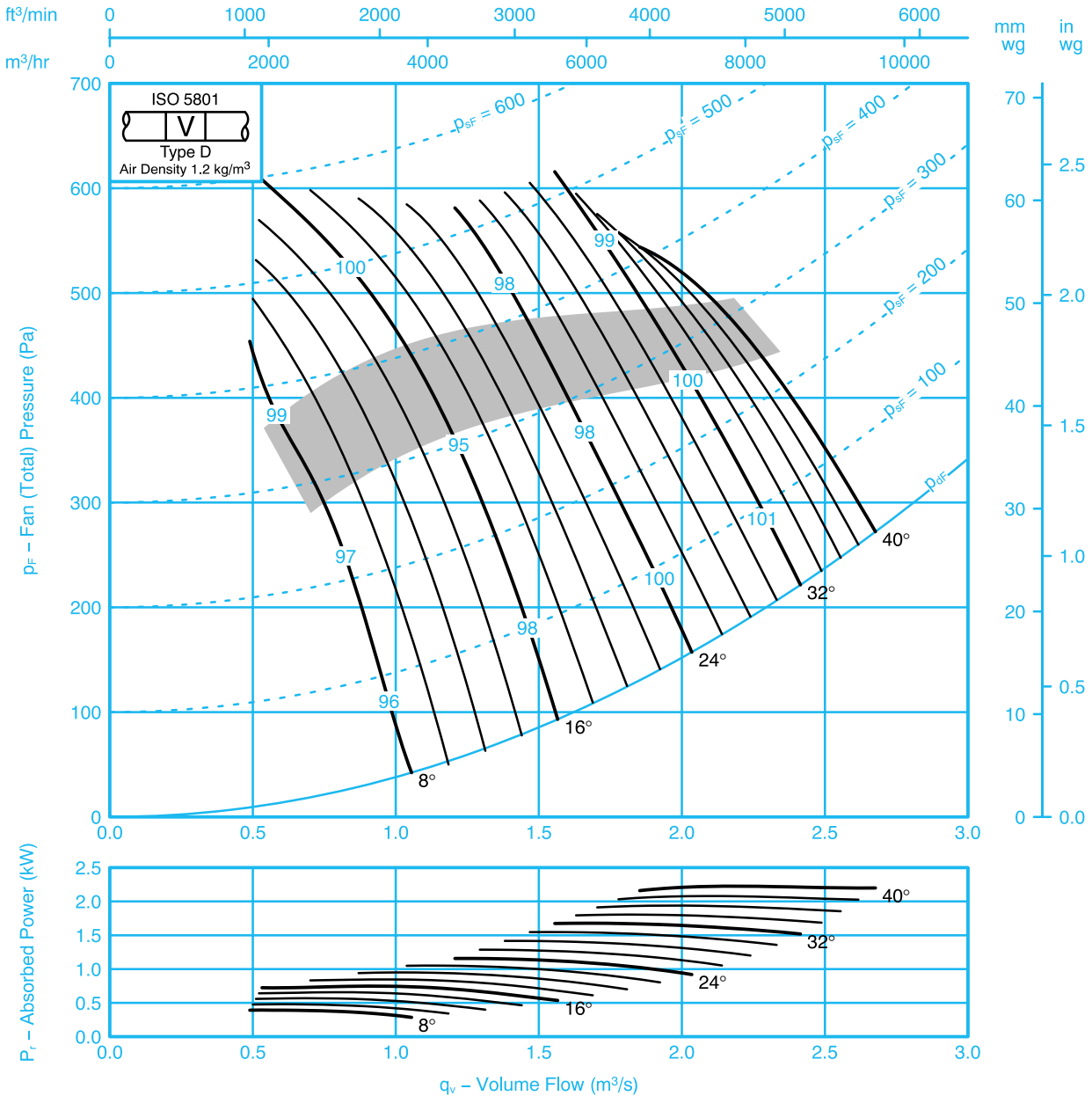
Fan Code: 40JM.BIF/16/2/5/...



400 mm 2910 rev/min 5 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-16	-14	-8	-8	-7	-10	-14	-22	8	-10	-11	-6	-6	-7	-11	-15	-24
	-17	-17	-6	-10	-5	-7	-11	-18		-10	-12	-4	-10	-8	-9	-13	-21
16	-16	-13	-10	-6	-4	-10	-16	-23	16	-11	-12	-9	-8	-3	-11	-16	-24
	-12	-11	-3	-9	-9	-12	-13	-18		-8	-9	-3	-10	-12	-14	-16	-22
24-40	-7	-7	-6	-10	-10	-12	-15	-19	24-40	-5	-6	-7	-12	-12	-16	-18	-23
	-8	-8	-4	-10	-11	-14	-16	-21		-5	-6	-5	-11	-12	-16	-18	-24

# JM AEROFOIL-BIFURCATED



BS 5750 Pt 1  
EN 29001  
ISO 9001

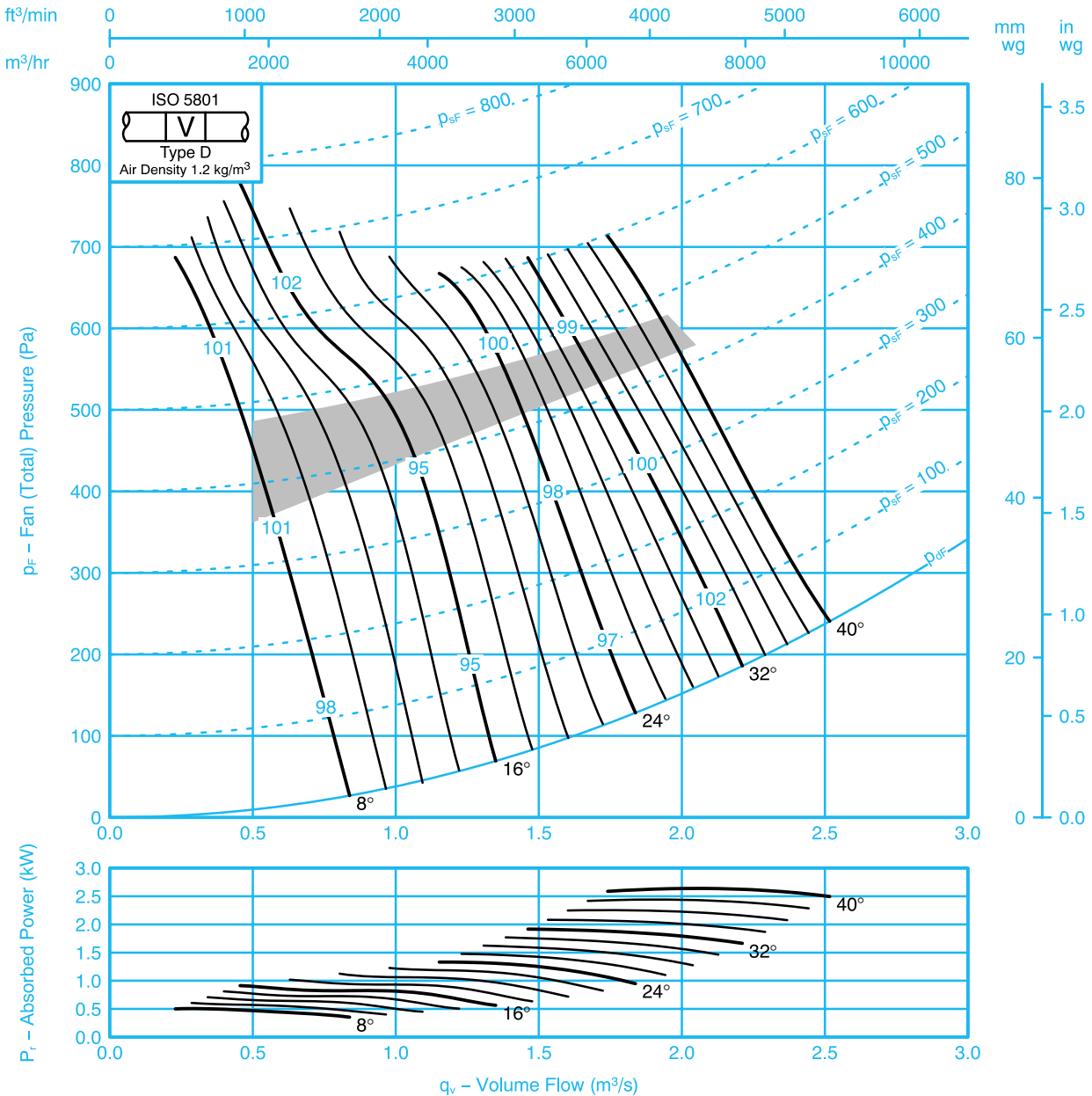
Fan Code: 40JM.BIF/20/2/6/...



400 mm 2950 rev/min 6 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-19	-21	-12	-8	-5	-8	-17	-24	8	-23	-19	-12	-8	-4	-5	-16	-23
	-17	-20	-14	-8	-5	-4	-13	-19		-22	-18	-13	-8	-4	-5	-13	-18
16	-14	-17	-10	-3	-8	-10	-16	-22	16	-17	-13	-6	-7	-5	-8	-14	-20
	-11	-15	-6	-5	-10	-9	-14	-18		-14	-12	-4	-9	-9	-8	-13	-17
24 - 40	-8	-9	-8	-6	-11	-12	-17	-20	24 - 40	-11	-7	-5	-7	-10	-11	-17	-19
	-8	-10	-5	-6	-13	-12	-19	-22		-10	-8	-4	-8	-11	-12	-18	-21

# JM AEROFOIL-BIFURCATED



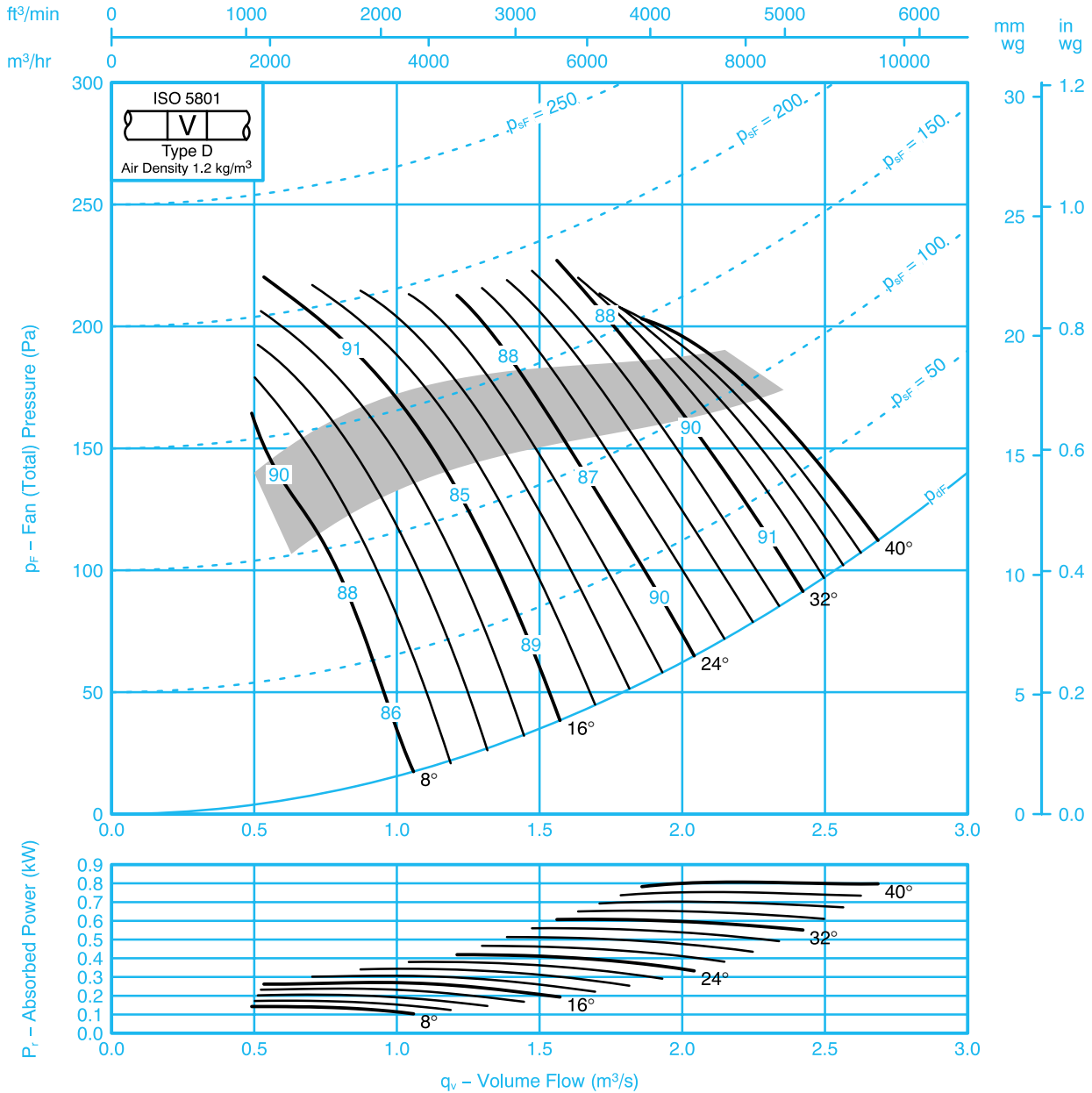
Fan Code: 50JM.BIF/16/4/5/...



500 mm 1440 rev/min 5 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-12	-6	-7	-5	-9	-13	-21	-27	8	-11	-7	-7	-8	-12	-15	-25	-29
	-16	-6	-10	-5	-7	-11	-18	-23		-12	-4	-10	-7	-9	-13	-21	-24
16	-13	-9	-6	-4	-10	-15	-23	-29	16	-12	-9	-8	-3	-11	-16	-24	-28
	-11	-3	-9	-9	-12	-13	-18	-21		-9	-2	-10	-11	-14	-16	-21	-24
24 - 40	-6	-5	-9	-9	-11	-14	-18	-21	24 - 40	-4	-5	-10	-10	-14	-16	-21	-23
	-7	-3	-10	-10	-13	-15	-20	-24		-5	-4	-10	-11	-15	-17	-23	-26

# JM AEROFOIL-BIFURCATED



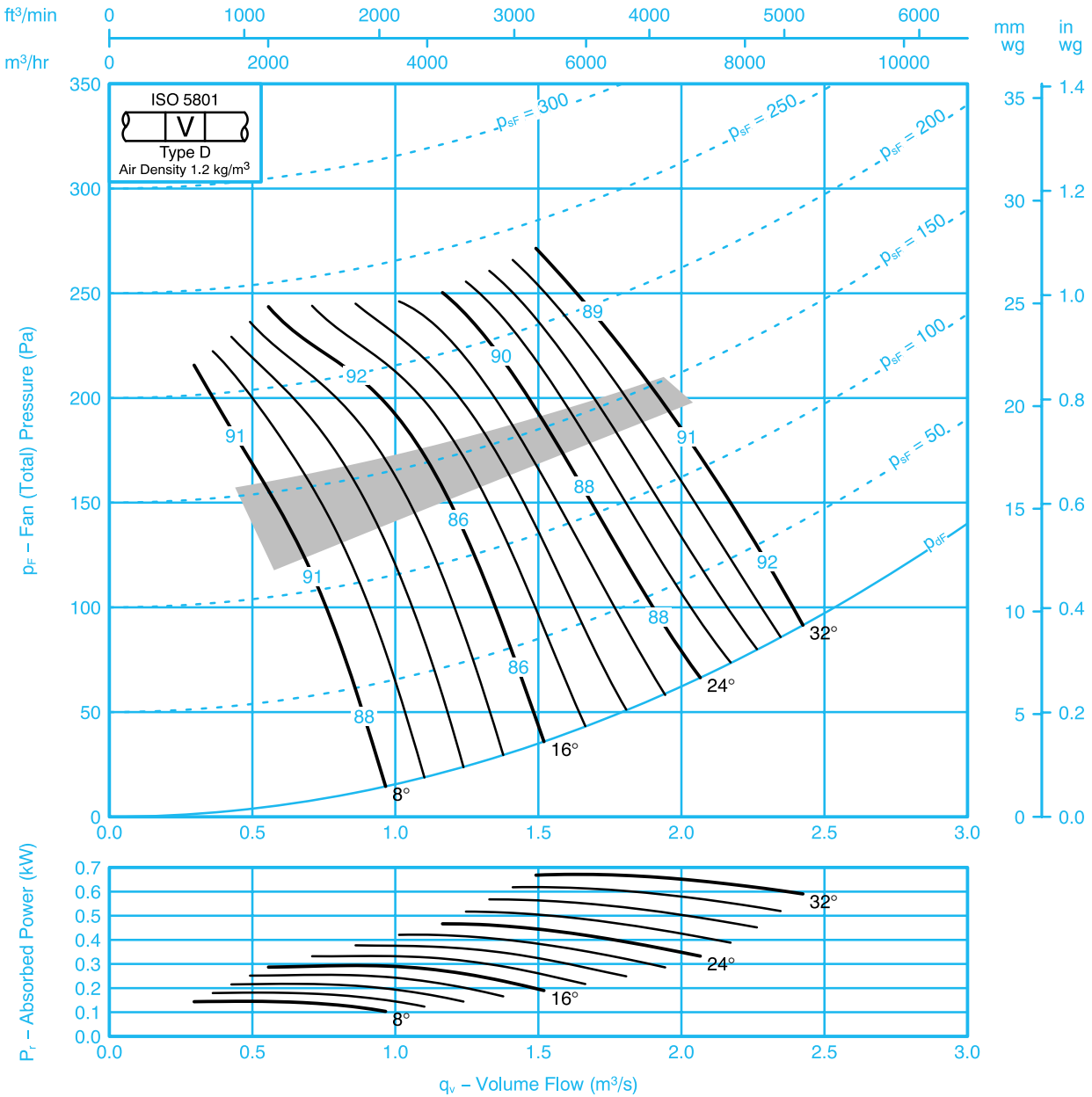
Fan Code: 50JM.BIF/20/4/6/...



500 mm 1440 rev/min 6 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-19	-10	-6	-4	-7	-16	-23	-31	8	-19	-12	-9	-4	-7	-17	-25	-34
	-20	-13	-8	-4	-4	-13	-19	-26		-18	-13	-7	-4	-5	-14	-19	-26
16	-16	-9	-3	-7	-9	-15	-22	-28	16	-14	-6	-7	-6	-8	-15	-21	-28
	-14	-5	-5	-9	-9	-14	-18	-22		-12	-4	-9	-9	-8	-14	-18	-23
24 - 32	-8	-6	-5	-10	-11	-16	-19	-23	24 - 32	-7	-5	-7	-10	-11	-17	-19	-23
	-9	-4	-5	-12	-12	-18	-21	-26		-8	-3	-8	-11	-12	-18	-21	-27



# JM AEROFOIL-BIFURCATED



BS 5750 Pt 1  
EN 29001  
ISO 9001

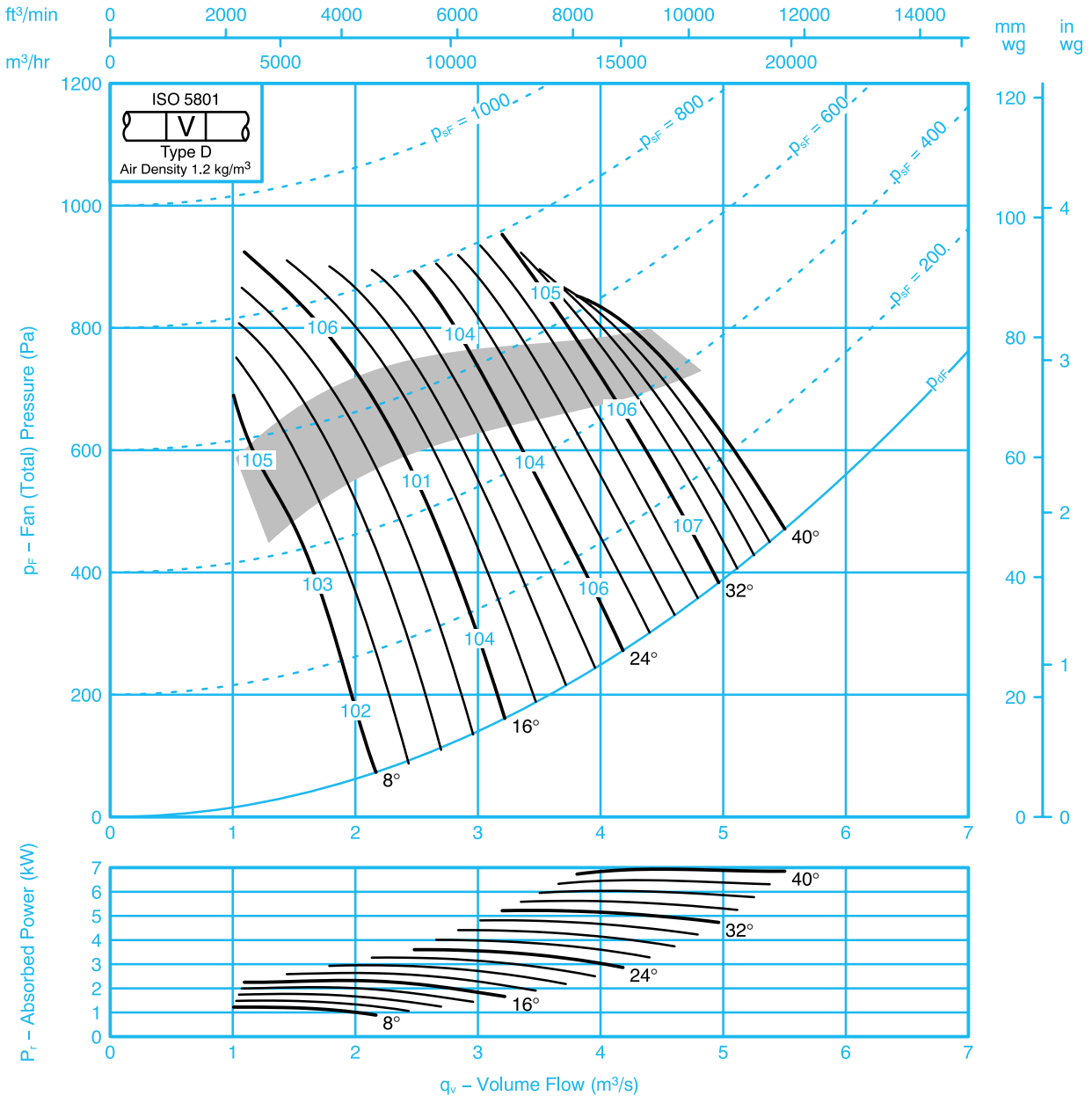
Fan Code: 50JM.BIF/16/2/5/...



500 mm 2950 rev/min 5 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels								Outlet Levels			
Pitch Angle	Octave Band Centre Frequency (Hz)							Pitch Angle	Octave Band Centre Frequency (Hz)		
	63	125	250	500	1k	2k	4k		8k	63	125

# JM AEROFOIL-BIFURCATED



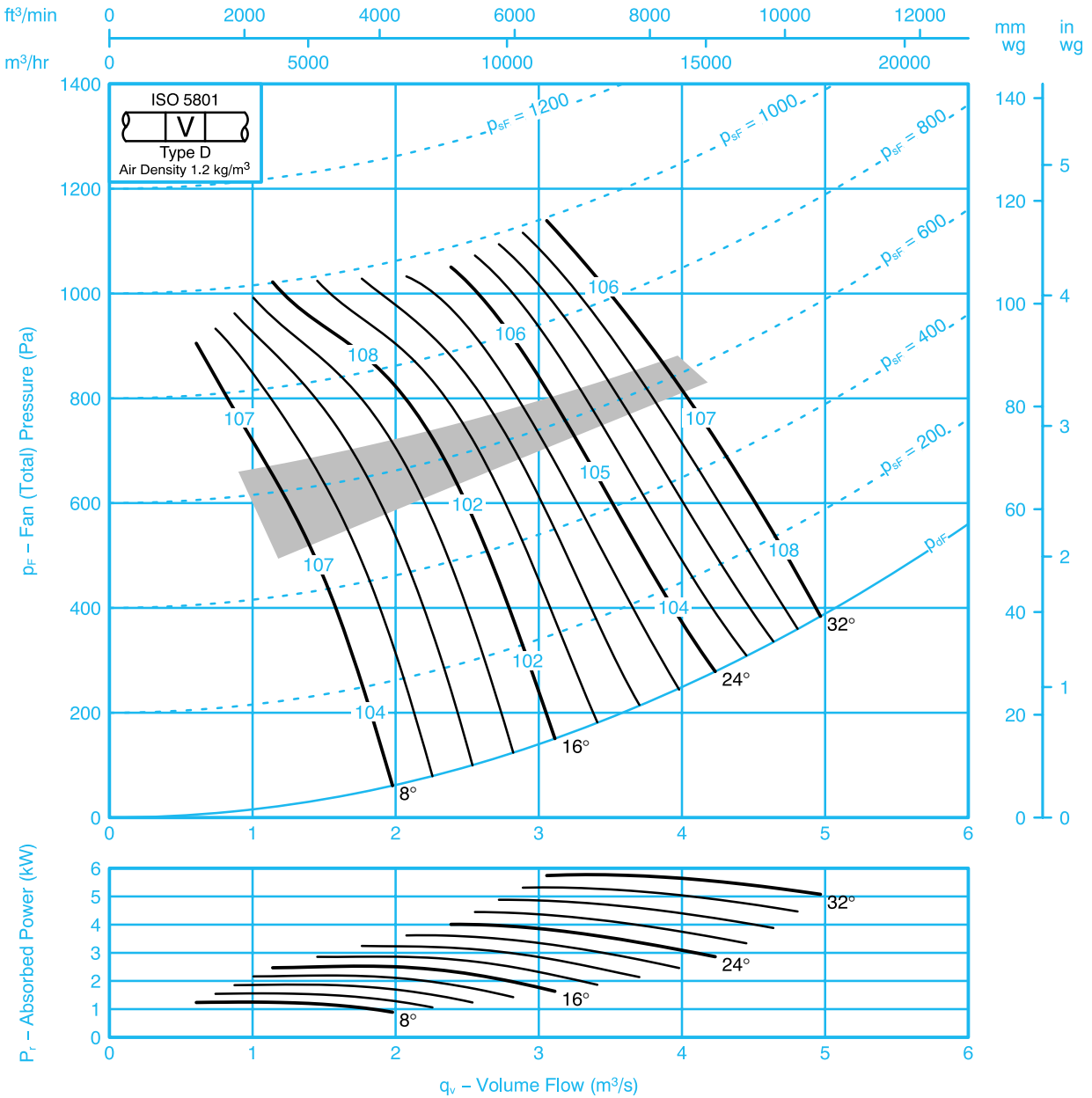
Fan Code: 50JM.BIF/20/2/6/...



500 mm 2950 rev/min 6 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-19	-21	-12	-8	-5	-8	-17	-24	8	-23	-19	-12	-8	-4	-5	-16	-23
	-17	-20	-14	-8	-5	-4	-13	-19		-22	-18	-13	-8	-4	-5	-13	-18
16	-14	-17	-10	-3	-8	-10	-16	-22	16	-17	-13	-6	-7	-5	-8	-14	-20
	-11	-15	-6	-5	-10	-9	-14	-18		-14	-12	-4	-9	-9	-8	-13	-17
24 – 32	-8	-9	-8	-6	-11	-12	-17	-20	24 – 32	-11	-7	-5	-8	-10	-11	-17	-19
	-8	-10	-6	-6	-13	-13	-19	-22		-10	-8	-4	-8	-11	-12	-18	-21

# JM AEROFOIL–BIFURCATED

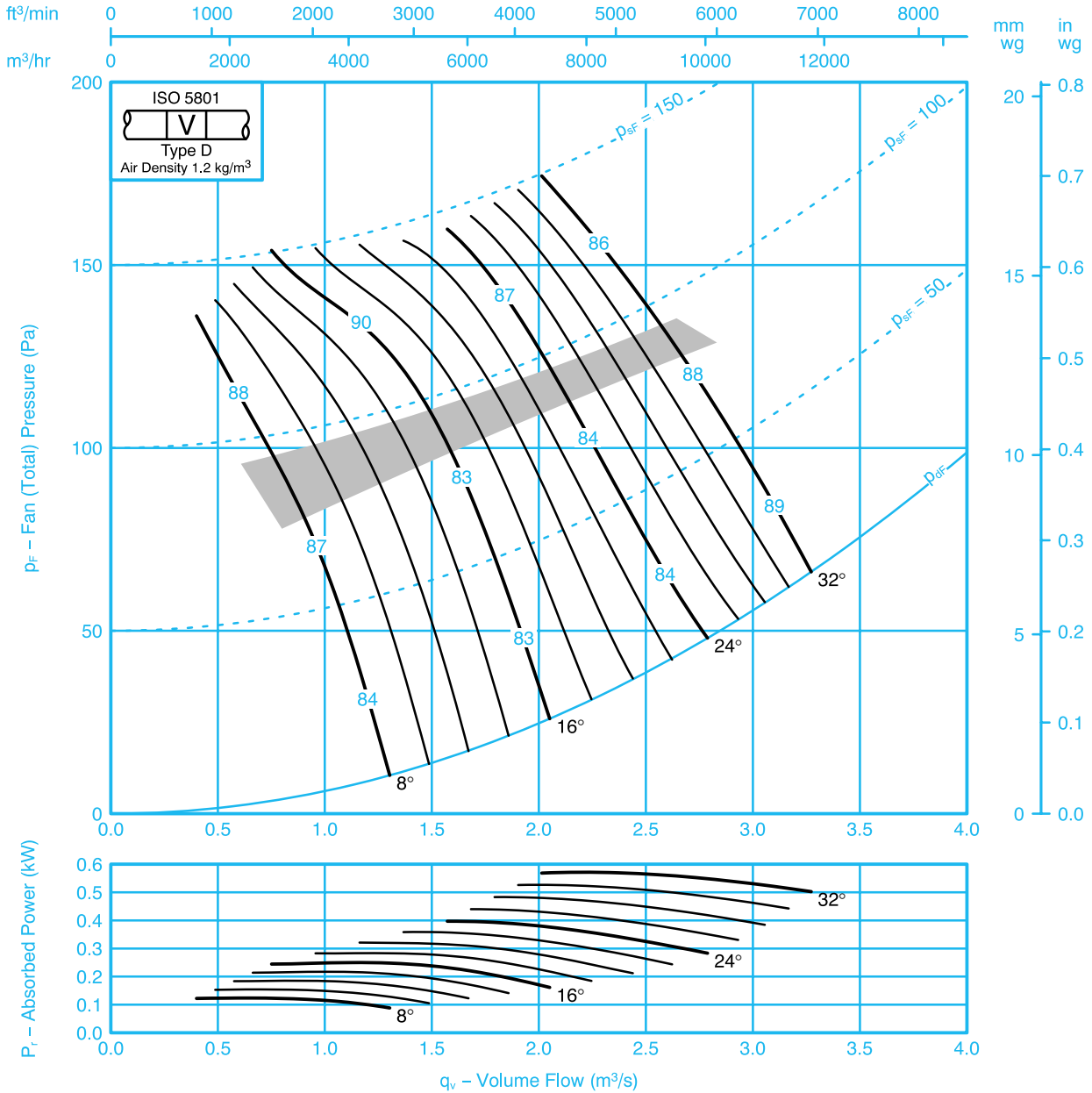


Fan Code: 63JM.BIF/20/6/6/...

630 mm 935 rev/min 6 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-15	-8	-4	-4	-12	-20	-27	-35	8	-13	-8	-5	-4	-12	-20	-26	-34
	-17	-9	-6	-3	-9	-16	-22	-29		-14	-8	-7	-4	-10	-16	-21	-28
16	-14	-8	-3	-6	-13	-20	-25	-31	16	-11	-6	-4	-6	-12	-18	-24	-30
	-12	-4	-5	-7	-12	-16	-20	-25		-10	-3	-7	-8	-13	-17	-21	-26
24 – 32	-10	-6	-4	-7	-14	-18	-22	-27	24 – 32	-8	-4	-7	-9	-14	-17	-20	-25
	-9	-4	-5	-10	-15	-19	-22	-28		-7	-3	-7	-10	-15	-19	-22	-27

# JM AEROFOIL-BIFURCATED



BS 5750 Pt 1  
EN 29001  
ISO 9001

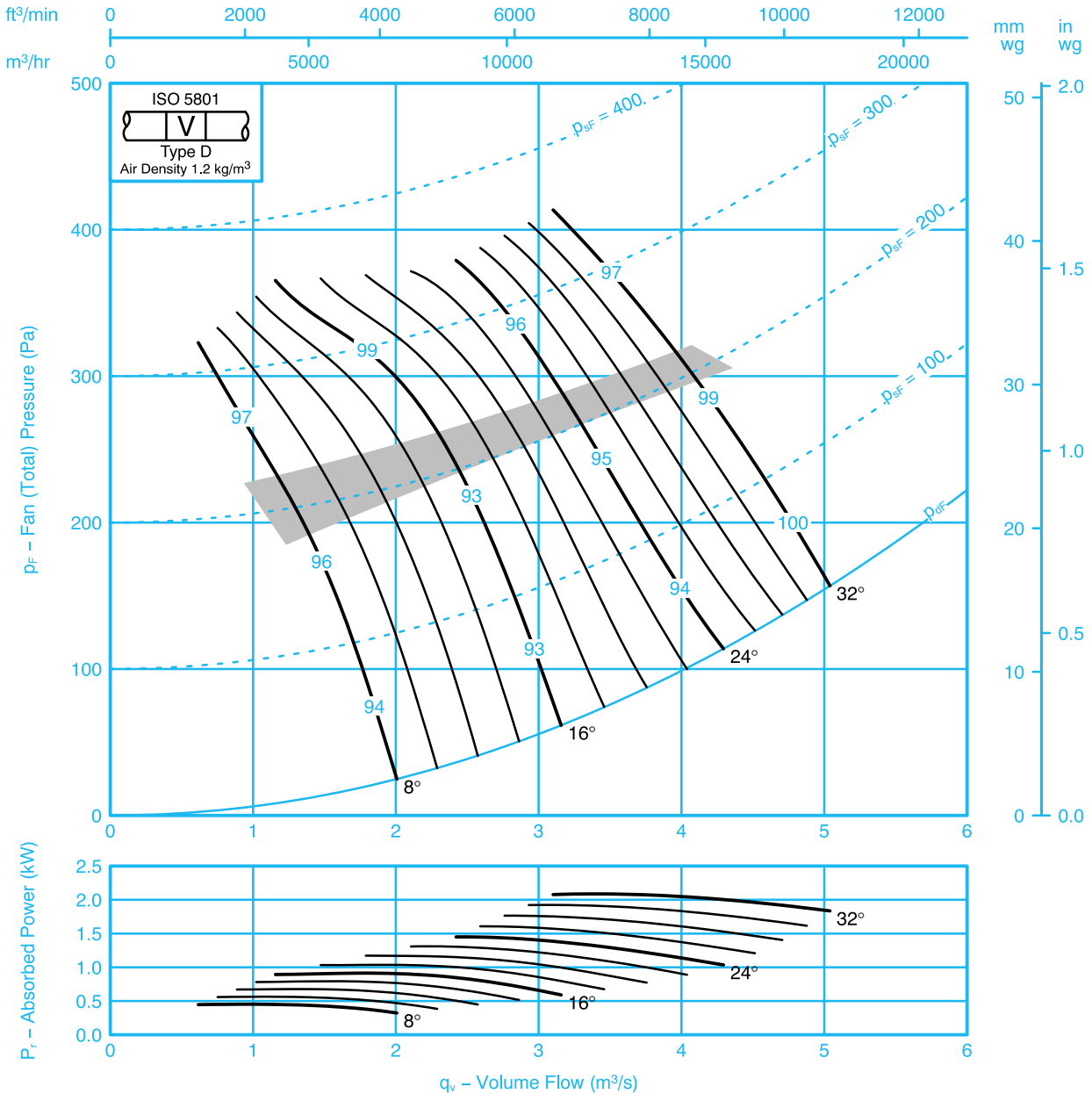
Fan Code: 63JM.BIF/20/4/6/...



630 mm 1440 rev/min 6 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-19	-11	-8	-5	-7	-17	-23	-31	8	-19	-10	-9	-5	-7	-16	-23	-30
	-18	-10	-9	-5	-5	-13	-19	-25		-18	-9	-10	-6	-6	-14	-19	-24
16	-17	-10	-5	-6	-10	-17	-23	-29	16	-15	-7	-8	-5	-9	-16	-21	-27
	-14	-5	-7	-8	-10	-15	-19	-23		-12	-3	-9	-9	-10	-15	-19	-23
24-32	-12	-8	-5	-7	-11	-17	-21	-25	24-32	-10	-4	-9	-9	-11	-17	-19	-23
	-11	-4	-5	-10	-12	-18	-21	-25		-8	-3	-8	-11	-13	-17	-21	-25

# JM AEROFOIL-BIFURCATED



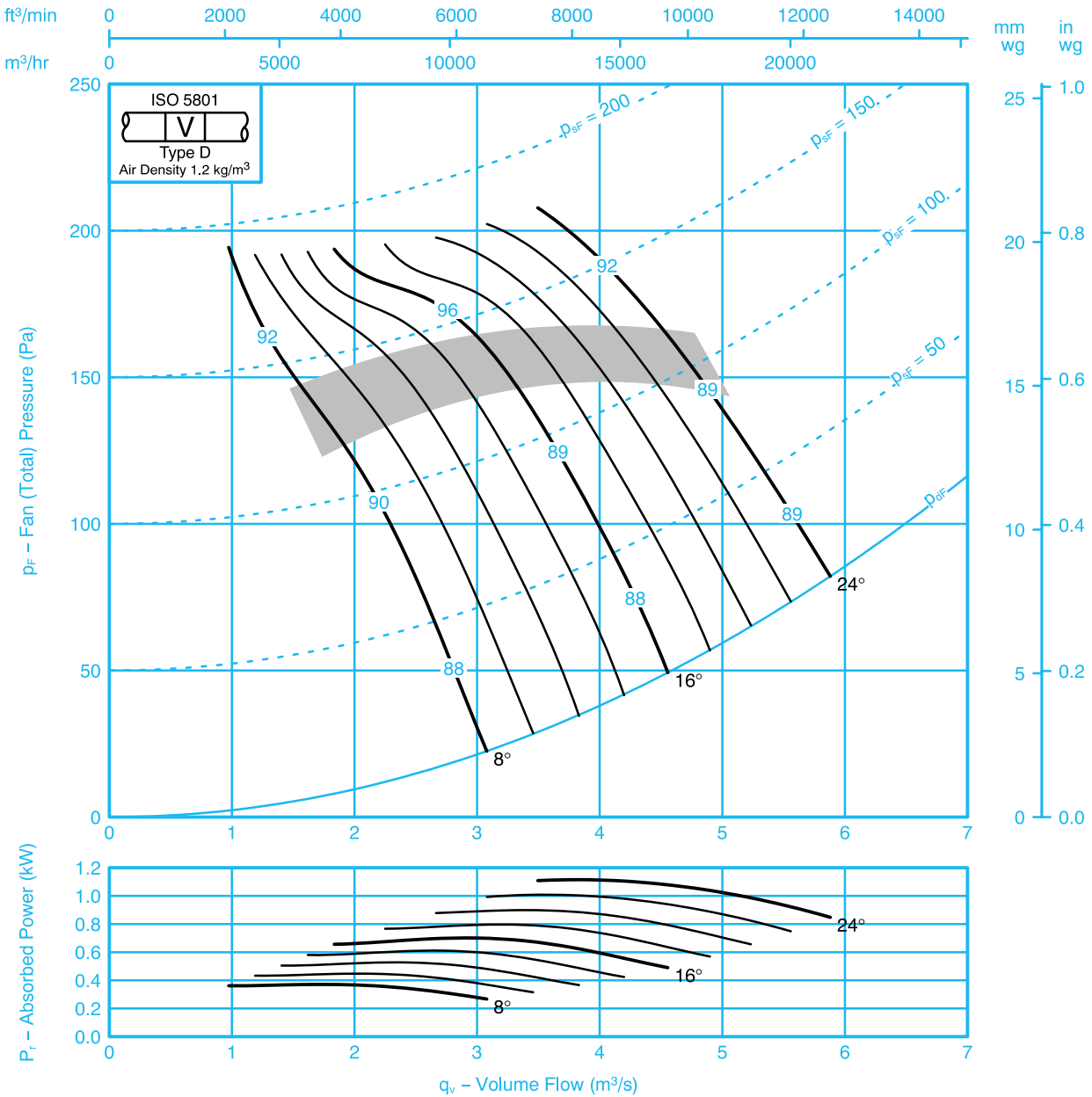
Fan Code: 80JM.BIF/20/6/6/...



**800 mm 935 rev/min 6 Blades 50 Hz**

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-16	-7	-4	-5	-12	-20	-26	-33	8	-12	-6	-5	-6	-12	-19	-23	-27
	-17	-6	-8	-4	-9	-17	-22	-29		-15	-3	-10	-6	-11	-17	-21	-26
16	-16	-8	-3	-5	-15	-21	-27	-31	16	-14	-6	-4	-7	-13	-19	-23	-27
	-15	-4	-5	-7	-14	-18	-22	-27		-11	-2	-7	-11	-15	-19	-22	-26
24-24	-13	-6	-4	-6	-14	-19	-22	-26	24-24	-11	-3	-7	-10	-15	-18	-20	-23
	-11	-5	-4	-9	-15	-19	-22	-27		-7	-4	-6	-11	-15	-19	-21	-25

# JM AEROFOIL-BIFURCATED



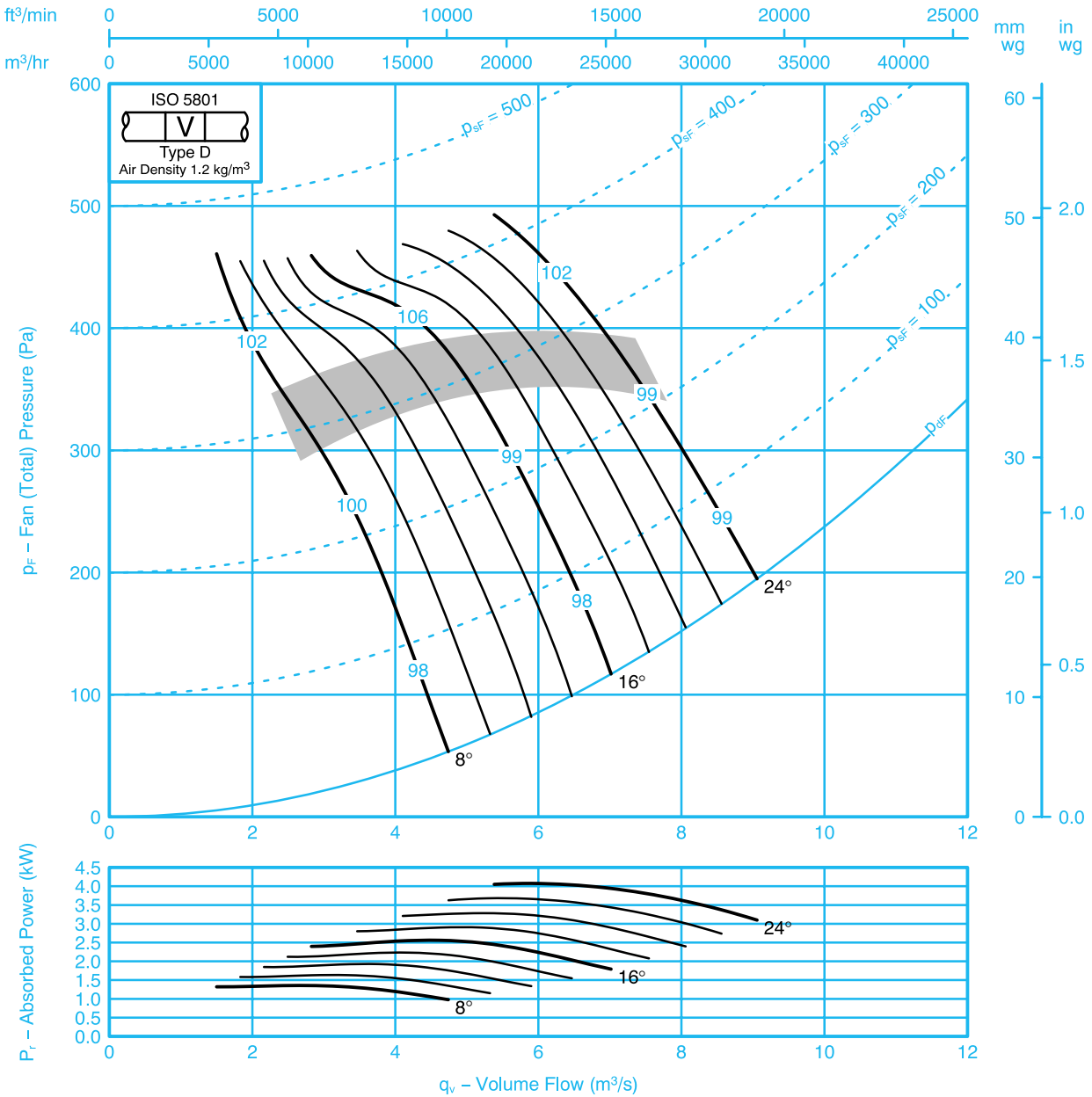
Fan Code: 80JM.BIF/20/4/6/...



800 mm 1440 rev/min 6 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-17	-9	-8	-4	-7	-16	-23	-29	8	-17	-8	-8	-5	-8	-16	-22	-26
	-15	-6	-11	-6	-6	-13	-20	-25		-16	-3	-13	-9	-7	-14	-19	-23
16	-18	-10	-7	-4	-11	-19	-24	-30	16	-17	-7	-8	-5	-9	-16	-21	-25
	-15	-4	-9	-5	-12	-16	-20	-24		-13	-2	-9	-9	-13	-17	-21	-24
24 - 24	-14	-8	-6	-4	-10	-17	-20	-25	24 - 24	-13	-3	-9	-8	-12	-17	-19	-22
	-12	-5	-5	-7	-12	-17	-21	-25		-7	-4	-7	-10	-14	-18	-21	-24

# JM AEROFOIL-BIFURCATED



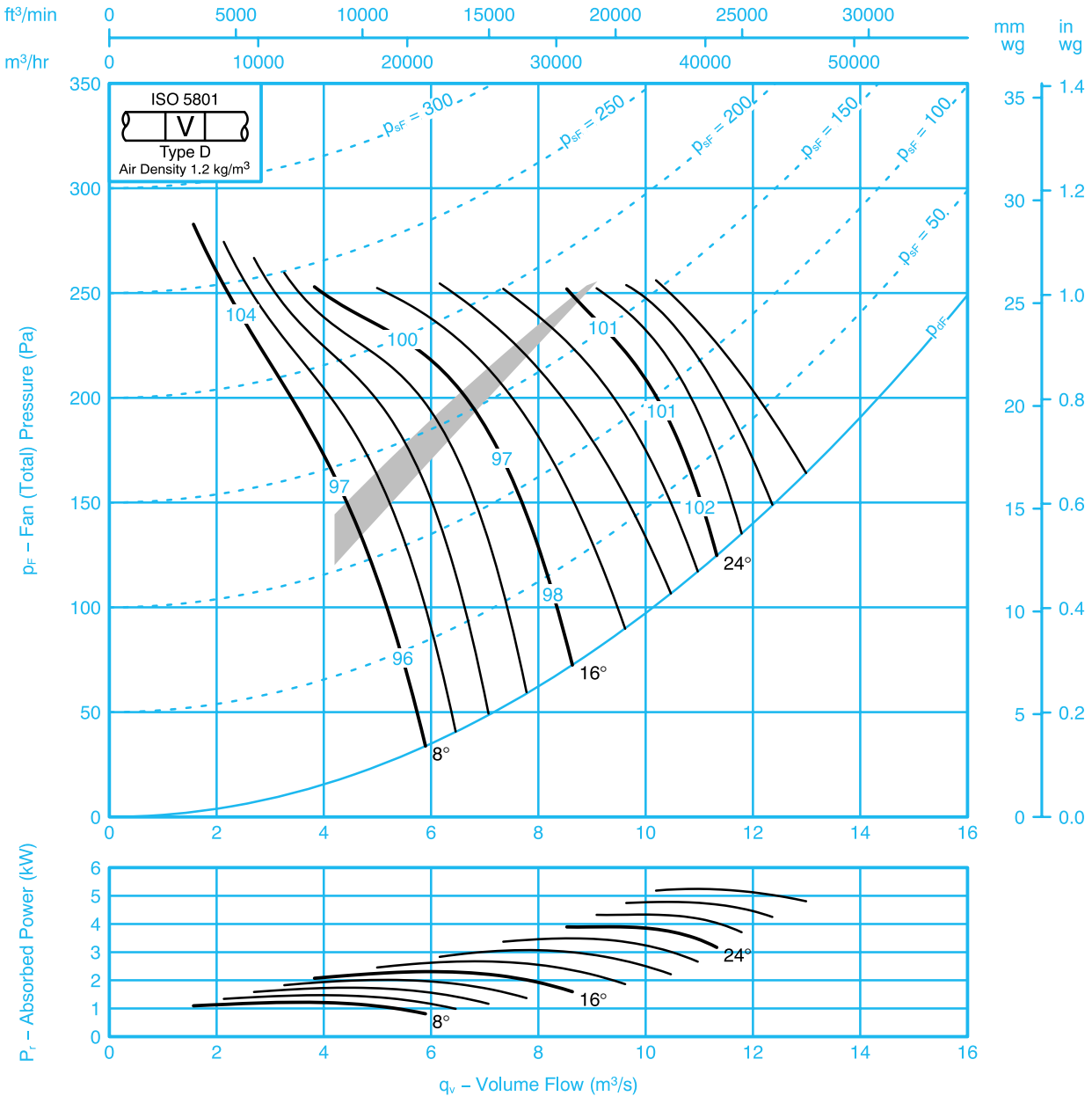
Fan Code: 100JM.BIF/25/6/9/...



1000 mm 960 rev/min 9 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-23	-7	-10	-4	-7	-13	-20	-28	8	-21	-5	-9	-4	-6	-12	-18	-26
	-21	-3	-10	-8	-8	-12	-17	-23		-19	-1	-9	-8	-7	-11	-15	-21
16	-19	-9	-6	-3	-10	-15	-22	-29	16	-16	-7	-5	-2	-8	-13	-20	-27
	-14	-5	-7	-6	-12	-16	-20	-27		-11	-2	-5	-5	-10	-13	-19	-25
24-30	-14	-7	-6	-4	-11	-16	-20	-25	24-30	-11	-7	-5	-4	-10	-15	-19	-22
	-11	-5	-6	-6	-12	-17	-21	-26		-8	-5	-5	-6	-12	-16	-20	-24

# JM AEROFOIL-BIFURCATED



BS 5750 Pt 1  
EN 29001  
ISO 9001

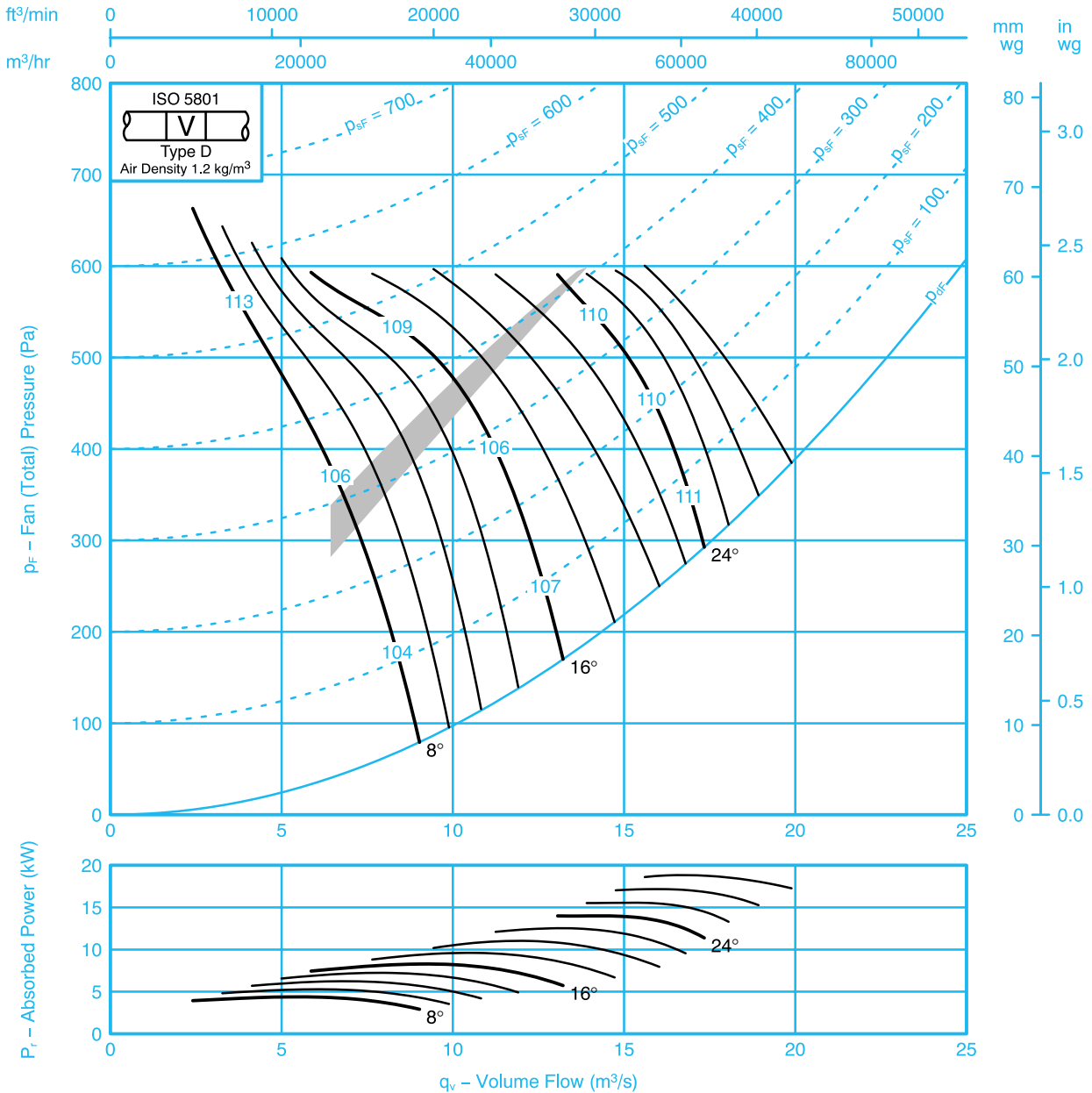
Fan Code: 100JM.BIF/25/4/9/...



1000 mm 1470 rev/min 9 Blades 50 Hz

## Performance Data ISO 5801:

Performance shown is specifically for fully ducted installations.



## Sound Data BS848 Part 2 1985:

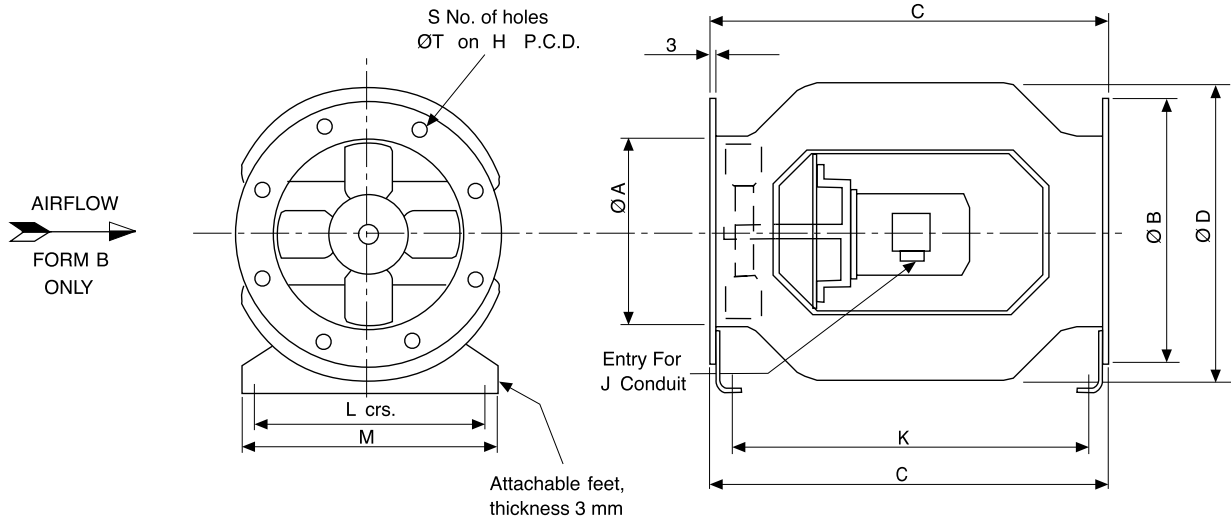
Single figures on performance curves are overall inlet sound power levels, derived from measurements taken in Woods laboratory specifically under ducted conditions. For sound power levels in eight octave bands, apply the following corrections to the overall level. Use upper corrections when operating point is above shaded area, or lower corrections when operating point is below shaded area.

Inlet Levels									Outlet Levels								
Pitch Angle	Octave Band Centre Frequency (Hz)								Pitch Angle	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k		63	125	250	500	1k	2k	4k	8k
8	-22	-21	-8	-6	-4	-9	-15	-22	8	-20	-20	-6	-6	-4	-8	-14	-20
	-19	-19	-4	-9	-6	-8	-13	-19		-17	-17	-2	-8	-6	-7	-12	-17
16	-18	-20	-9	-3	-6	-11	-17	-24	16	-16	-17	-8	-2	-5	-9	-16	-23
	-13	-14	-5	-5	-7	-12	-17	-22		-10	-11	-3	-4	-6	-10	-15	-21
24-30	-13	-15	-7	-4	-7	-13	-18	-21	24-30	-10	-13	-6	-3	-7	-12	-17	-20
	-10	-12	-5	-5	-9	-14	-18	-23		-7	-10	-5	-4	-9	-14	-17	-21



## DIMENSIONS AND WEIGHTS

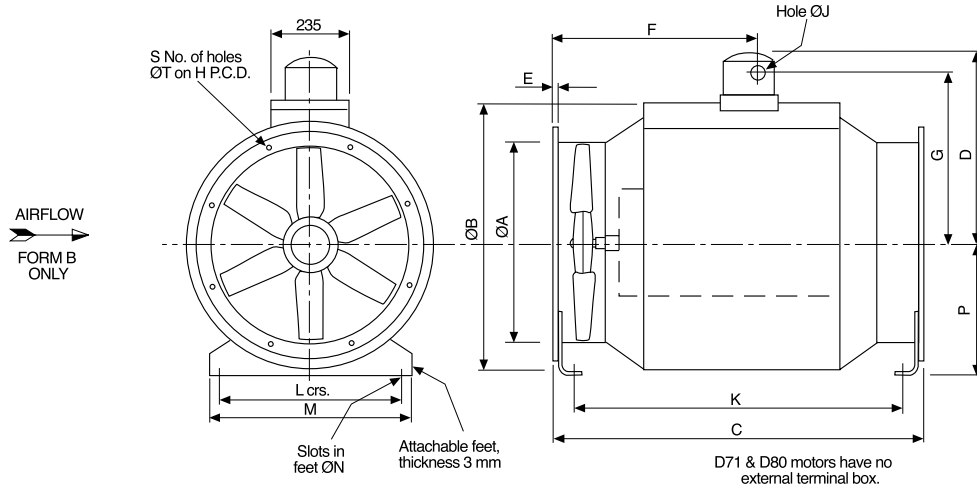
### 15JM.33 - 30JM.33



Code	Motor	A	B	C	D	E	H	J	K	L	M	P	S	T	Weight (kg)
15JM.33	D63	152	208	610	257	1.6	184	CM20	-	-	-	106	4	8	15
25JM.33	D63	254	324	489	400	2	299	CM20	409	222	254	178	8	10	21
	D71	254	324	489	400	2	299	CM20	409	222	254	178	8	10	24
30JM.33	D63	305	375	584	470	2	349	CM20	504	273	305	203	8	10	26
	D71	305	375	584	470	2	349	CM20	504	273	305	203	8	10	28

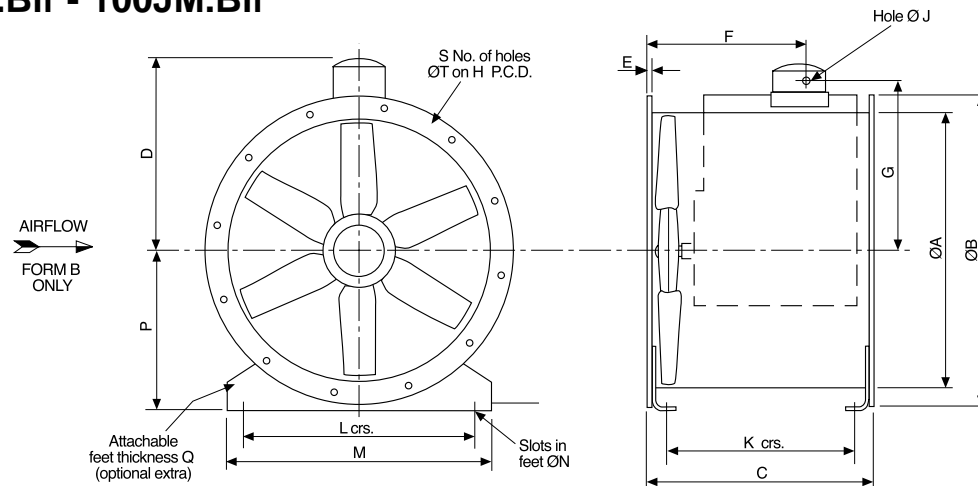
## DIMENSIONS AND WEIGHTS

### 40JM.Bif - 50JM.Bif



Code	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	S	T	Weight (kg)
40JM.Bif	D71	400	524	727	-	3	-	-	450	-	641	350	400	10	250	3	8	12	61
	F2225	400	524	727	367	3	375	332	450	27	641	350	400	10	250	3	8	12	72
50JM.Bif	D80	500	610	787	-	3	-	-	560	-	691	450	500	10	315	3	12	12	78
	F2225	500	610	787	408	3	375	371	560	27	691	450	500	10	315	3	12	12	83
	F2229	500	610	787	408	3	430	371	560	27	691	450	500	10	315	3	12	12	93

### 63JM.Bif - 100JM.Bif



Code	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	S	T	U	Weight (kg)
63JM.Bif	F2245	630	724	616	436	3	360	400	690	27	530	580	630	10	400	3	12	12	375	112
80JM.Bif	F2249	800	894	660	520	3	468	484	860	27	544	750	800	10	510	5	16	12	485	155
100JM.Bif	D132	1000	1138	800	650	5	492	608	1070	40	720	950	1000	12	574	6	16	15	547	280
	D160	1000	1138	1000	689	5	-	-	1070	40	920	950	1000	12	574	6	16	15	547	355
	D180	1000	1138	1000	689	5	-	-	1070	40	920	950	1000	12	574	6	16	15	547	410

All dimensions shown in mm

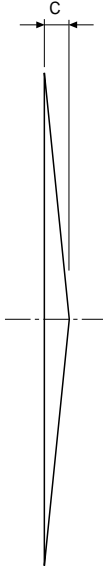
## ANCILLARIES

### GUARDS

TYPE I  
Impeller Side



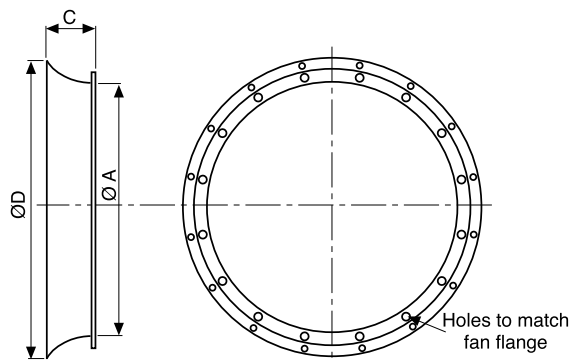
TYPE IV  
Bellmouth &  
Motor Side



Suitable for fan ØA	Type	C	Weight (kg)
400	I	137	1.6
400	IV	30	0.6
500	I	137	2.0
500	IV	30	0.7
630	I	137	2.8
630	IV	50	1.2
800	I	137	3.5
800	IV	50	1.5
1000	I	137	5.0
1000	IV	50	2.0

### BELLMOUTH

Suitable for fan ØA	C	D Max.	Weight (kg)
305	57	366	0.9
400	80	480	1.5
500	87	600	3.2
630	108	757	4.8
800	134	957	6.8
1000	167	1199	17.8

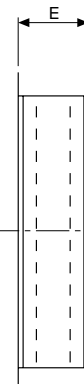


Suitable for fan ØA	D	E	F	G	Weight (kg)		
					Matching Flange	Flexible Connection	Damper
152	25	135			0.22	1.0	-
254	25	135			0.34	1.5	-
305	25	162			0.8	2.8	-
400	32	110	225	17	1.5	4.5	10
500	32	110	225	75	2.0	5.5	16
630	50	160	225	176	3.0	7.5	20
800	50	160	225	270	3.6	9.1	27
1000	50	160	225	345	4.6	11.6	36

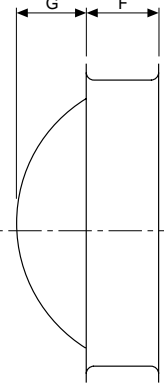
MATCHING FLANGE



FLEXIBLE CONNECTION

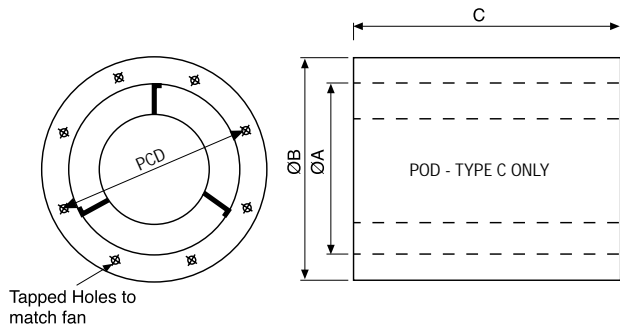


DAMPER



## ANCILLARIES

### SILENCER - B (& C) TYPE



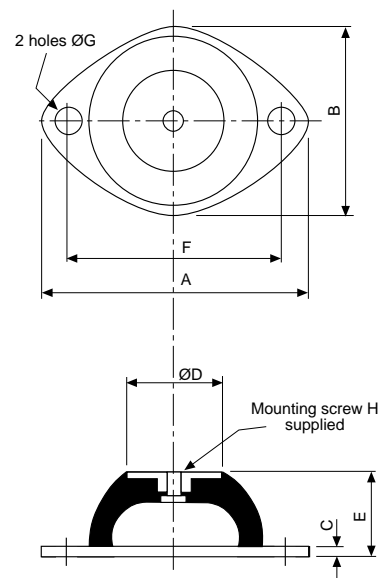
Suitable for fan ØA	ØB	C Length		PCD	Thread	Weight (kg)			
		1Ø	2Ø			B Type		C Type	
						1Ø	2Ø	1Ø	2Ø
152	210			184	M6				
254	299			273	M8				
305	416	305	610	350	M8	10	16	12	18
400	500	400	800	450	M10	15	25	18	30
500	650	500	1000	560	M10	25	41	29	48
630	780	630	1260	690	M10	35	61	42	72
800	1000	800	1600	860	M10	55	96	66	116
1000	1200	1000				82		100	

The above silencers give the approximate dB(A) reductions:-  
 B Type 1 diameter length - 7 to 10 dB(A)  
 C Type 1 diameter length - 12 to 15 dB(A)  
 For full acoustic details contact our Woods Acoustic Division  
 Telephone: +44(0)1206 544122

### VIBRATION ISOLATORS

#### RUBBER IN SHEAR

Type	Load range per mounting (kg)	A	B	C	D	E	F	G	H
M27 Green	0-3	64	43	2	15	20	50	7	M6
M7 Black	3-5	64	43	2	15	20	50	7	M6
M25 Green	5-20	85	56	2	30	25	66	8	M8
M25 Black	19-40	85	56	2	30	25	66	8	M8
M200 Green	38-130	151	101	3	55	45	124	11.5	M10
M200 Black	90-220	151	101	3	55	45	124	11.5	M10



#### OPEN SPRING

Type	Rated Load (kg)	Deflection at rated load (mm)	Free Height (mm)	Base fixing centres (mm)	Base fixing hole ø	Mounting Screw
30 Yellow	30	25	94	85	M8	M10
60 Green	60	30	94	85	M8	M10