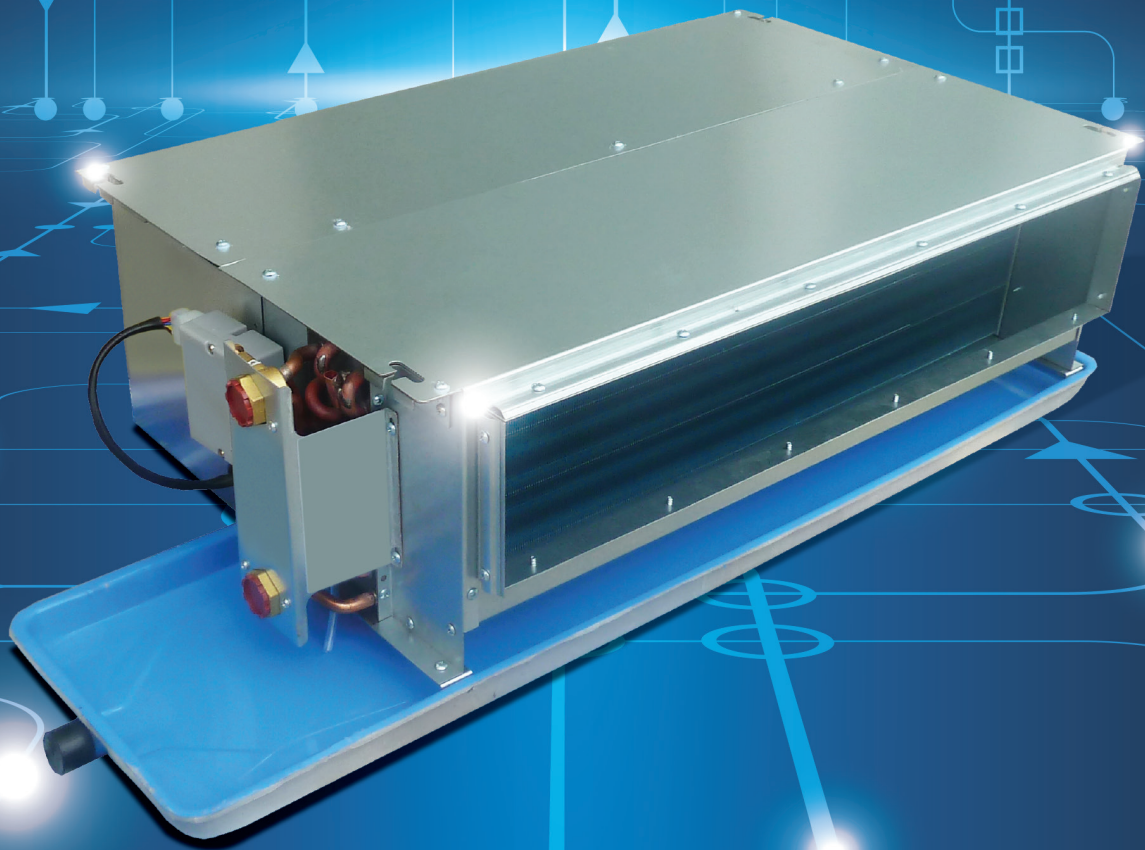




BLUE STAR



Fan Coil Units

Ensures high quality air, every moment.



The Leaders in Cooling

Blue Star is India's largest central air conditioning and commercial refrigeration company, with over seven decades of experience in providing expert cooling solutions. It has offices across India, UAE, Malaysia, Qatar & Oman, 5 modern manufacturing facilities, around 2500 employees and a turnover of over (USD) \$530 Million. Alliances and partnerships with leaders in global technology have further enhanced Blue Star's capability in providing advanced cooling solutions for diverse needs.

Blue Star offers a range of air conditioning products that encompasses Screw Chillers, Scroll Chillers, Air Handling Units, Fan Coil Units, Packaged Air conditioners, Ducted Splits and VRF systems, apart from room air conditioners such as Split, Window, Verticoil and Cassette Air conditioners. Refrigeration products include Water Coolers, Deep Freezers and Water Cooling solutions specifically designed to cater to the unique requirements of India, Middle East, Africa, SAARC, ASEAN and Pacific Islands markets. The Company also offers specialised air conditioning equipment for telecom, precision control and process applications.

A wide range of models is available in each product category to ensure that the air conditioning system design is implemented without any compromise. All the products are energy efficient and come with a host of distinctive features. Every Blue Star product is a result of robust R&D, a strong understanding of design and superior manufacturing processes. These core attributes have made Blue Star the preferred cooling solution provider.

Global presence

Blue Star's international business consists of AC&R product exports to the Middle East, Africa, SAARC, ASEAN and Pacific Islands regions, with steady progress also being made in developing the other international markets. In addition, the Company also participates in international projects managed by the Company's joint ventures in Qatar, Oman and Malaysia.

New opportunities are being identified for AC&R products, MEP projects, after-sales service as well as system integration and agency businesses in global markets.

Cutting-edge R&D

Blue Star's innovations are born out of the high-end R&D establishment that has been painstakingly put together over decades with the brightest brains and the latest equipment in place.

Recognised by the Department of Science and Industrial Research (DSIR) - Ministry of Science and Technology, Government of India, Blue Star's R&D has enabled the Company to file more than 25 patents and win many prestigious innovation awards.





World-class testing facilities

Blue Star's infrastructure for conducting various performance tests on new products is one of the largest in India, ensuring that every product and technology is tested vigorously before being productionised. Blue Star has 6 Psychrometric, 2 Condensing and 2 Environmental test labs.

Blue Star's R&D labs at Thane & Dadra have been certified by Intertek, Sweden to carry out safety tests for HVAC products, as per International Electrotechnical Commission Standards. Intertek is a global leader in safety testing and certification for regulatory approval.

Also, the National Accreditation Board for Testing and Calibration Laboratories (NABL) has conferred a Certificate of Accreditation to Blue Star Laboratories located at Thane and Wada, India in accordance with the Standard ISO 17025: 2005.

NABL is a signatory member of APLAC and International Laboratory Accreditation Cooperation (ILAC).



Products designed are also subject to various reliability tests before they are cleared for manufacturing. These include endurance, vibration and shock tests along with life cycle and aging tests to rigorously test design reliability.

All Blue Star products are designed to perform under tropical conditions such as high ambients, high humidity, extreme voltage conditions and fluctuations.

Advanced Psychrometric Test Lab

Blue Star factories have a modern Psychrometric Test Lab that can simulate and test products under various conditions. All machines manufactured at our factories are rigorously tested for various parameters before dispatch. Customers too can witness actual performance tests conducted on the products before the dispatch of their machines, making Blue Star one of the few companies in the air conditioning industry offering this facility.



World-class manufacturing

Blue Star's manufacturing strength is spread across five state-of-the-art manufacturing facilities. Blue Star's commercial and residential AC units are manufactured at the modern factories at Wada, Dadra and Himachal Pradesh. Set up to international standards, the products manufactured at this ISO 9001-2008 certified factory are exported to various countries across the globe.

The factories are highly productive, automated and flexible. They are also efficient in manufacturing heat exchange coils and advanced chillers. These factories have modern sheet metal fabrication units with Amada punching and bending machines.



Dadra Factory



Panel Punching Machine

Ensuring an excellent finish

Blue Star's production facilities use raw materials that are of the highest quality, including corrosion resistant, galvanised steel for enhanced life and rust protection. The equipment used to process the steel include CNC machines such as the Amada punch press, hydraulic press, specialised microprocessor-based protection and resistance welders. All these machines ensure superior quality in cabinet fabrication to tight tolerances.

All products are powder coated by specialised process equipment from Nordson of the USA on fully conveyerised lines. They are fitted with electro-mechanical oscillators that ensure an even powder coating. A 'smart spray' mechanism senses movement of the conveyor and geometry of the component to adjust the powder flow.

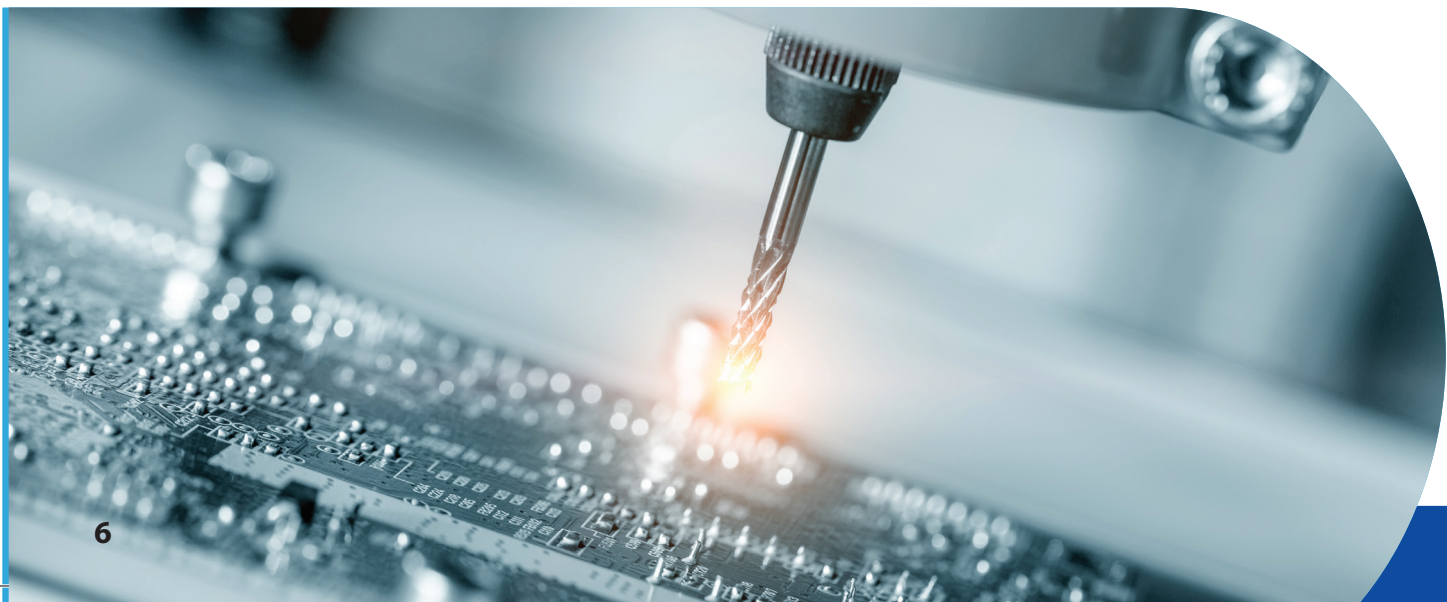
Blue Star is equipped with a high-tech coil manufacturing setup using imported Burr Oak machines that can manufacture high-efficiency plain coils as well as enhanced split fins for a superior heat transfer.

The copper tubes are then processed by a bank of PLC-controlled Burr Oak machines that ensure perfect bonding between the copper tubes and fins for a superior performance. The coils are then tested for fine leaks with ultra-sensitive electronic leak detectors to enhance reliability.

The entire FCU range is manufactured with robust manufacturing practices and quality processes laid down by Blue Star. And is subject to QC testing at the factory for all critical parameters such as CFM and static pressure, casing leak, current, voltage and vibration.



Paint Shop



Certified for Excellence

Blue Star's production processes and QC have resulted in international recognition of the quality and reliability of Blue Star products and their performance.

ISO 9001-2008 Quality Management Systems Certification



Mechanical and Performance Characteristics

BS/EN1886:2007 for strength of casing, tightness, thermal resistance

Sound Attenuators certified in SRL, UK for the static insertion loss as per BS 4718-1971

Test rig in accordance to AMCA 210-07 & AMCA 300-14 to test the product performance

Blue Star FCUs

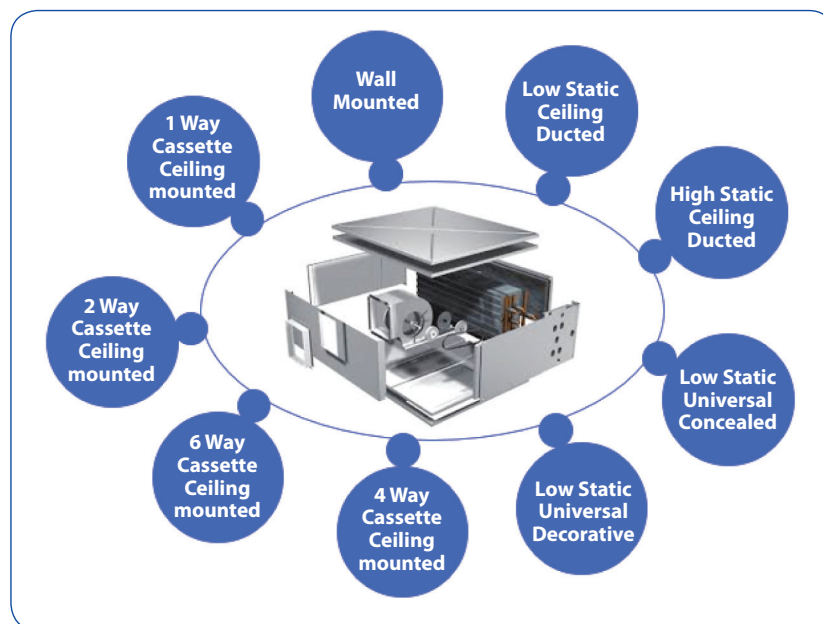
Fan Coil Unit is a simple device consisting of cooling or heating coil, filter and fan. It is part of central air conditioning HVAC systems with application for commercial and industrial buildings.

A fan coil unit is a diverse device sometimes using ductwork and is used to control the temperature in the space where it is installed or serve multiple spaces. It is controlled either by a manual on/off switch or by thermostat, this in turn controls the throughput of water to the heat exchanger using a control valve and/or the fan speed.

The Noise output from FCUs like any other form of air conditioning is principally down to design of the unit and the building materials around it, a correctly selected FCU can offer low noise levels.

Blue Star offers a comprehensive range of FCUs that spans over a large product portfolio covering a capacity range extending from 200 to 3000 CFM.

The range includes cooling-only, heating-only and cooling-cum-heating models, thereby addressing all demands.





World-class Features

Blue Star FCUs are designed to be world-class. That's why you will find that these units are packed with features that you would normally find only in premium units.



Wide range

The Blue Star FCU range is arguably the widest in the market and covers every possible need that could arise in the field.



Low height

Since FCUs generally reside between the false ceiling and the actual ceiling, height is always an issue. That is why Blue Star FCUs are designed to be low-height to suit all sites.



Easy service

Blue Star FCUs are designed for ease of service. For example, the fan deck is easily detached for maintenance, and the filter and coil are easy to access for cleaning.



Improved air quality

The high quality filter and the stainless steel drain pan provided, drain away the condensate to ensure that the cooled air throw is of high quality.



Rugged design

The galvanised steel body designed without the need for any welded joints, the permanently lubricated motor bearings and the in-built thermal overload protection device make the Blue Star FCU extremely rugged and durable.



Flexible installation

The provision of piping connection on both sides of the Blue Star FCU allows piping to be on either side, thus allowing flexibility in site design.



Blue Star's Fan Coil Unit Product Range

BSL fan coil unit is designed for external static pressure (ESP) upto 150 Pa. Owing to its low noise, this product is suitable for hotels, office buildings and other public buildings.

The Blue Star FCU range is comprehensive and suits every application requirement.

The Range Includes:

Concealed Ducted (FWLCD) FCUs



- Suitable for chilled water cooling coil
- Blow through arrangement
- Air flow: 200 to 2000 CFM
- ESP: Up to 75Pa
- 2-pipe: 3 or 4-row
- 4-pipe: 3+1-row
- Supplied with plenum box, 8 mm nylon filter and terminal box

Options:



Powder coated casing



SS drain pan, auxiliary drainpan for valve package



DC motor



1" aluminium filter



Control valve (2-way & 3-way)



Thermostat (Manual/LCD/Remote)



Electric heater

Water Cooled High Static Ceiling Ducted (FWHCD) FCUs



- Higher version of ceiling concealed units
- Draw through arrangement
- Air flow: 800 to 3000 CFM
- ESP: 65 Pa to 150 Pa
- 2-pipe: (4-row/6-row)
- 4-pipe: (3+1-row/4+2-row)
- Supplied with 8 mm nylon filter and terminal box

Options:



Auxiliary drain pan for valve package



Control valve (2-way & 3-way)



Thermostat (Manual/LCD/Remote)



Electric heater

Water Cooled Low Static Universal Concealed (FWLUC) FCUs



- Air flow: 200 to 1400 CFM
- ESP: Upto 65 Pa
- 2-pipe: (3-row/4-row)
- 4-pipe: (3+1-row)
- Supplied with plenum box, 5mm nylon filter and terminal box

Options:



Powder coated casing



SS drain pan, auxiliary drainpan for valve package



DC motor



Control valve (2-way & 3-way)



Thermostat (Manual/LCD/Remote)



Electric heater

Water Cooled Low Static Floor Vertical Decorative (FWLUD) FCUs



- Air flow: 200 to 1400 CFM • ESP: 12Pa • 2-pipe: (3-row/4-row) • 4-pipe: (3+1-row)
- Supplied with cabinet, 5mm nylon filter and terminal box

Options:



DC motor



ABS
Plastic feet



Auxiliary drainpan
for valve package



Control valve
(2-way & 3-way)



Thermostat
(Manual/LCD/Remote)



Electric heater

Water Cooled Low Static 1-Way Ceiling Cassette (FWL1CM) FCUs



- Two types of ABS panels as options
- Air flow: 200 to 500 CFM
- ESP: Up to 12Pa
- 2-pipe: 3-row
- 4-pipe: 3+1-row
- Supplied with remote controller, 5mm nylon filter and terminal box

Water Cooled Low Static 2-Way Ceiling Cassette (FWL2CM) FCUs



- Air flow: 200 to 1400 CFM • ESP: Up to 12Pa • 2-pipe: 2-row coil • 4-pipe: 2+1 row coil
- Supplied with remote controller, 5mm nylon filter and terminal box

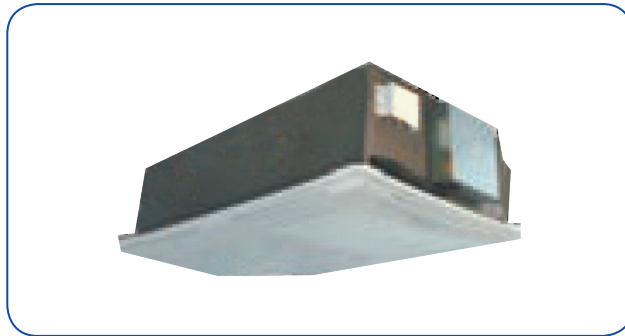
Water Cooled Low Static 4-Way Ceiling Cassette (FWL4CM) FCUs



- 300 to 1700 CFM • ESP: Up to 12Pa • 2-pipe: 2-row coil • 4-pipe: 2+1 row coil
- Supplied with remote controller, 5mm nylon filter and terminal box



Water Cooled Low Static 6-Way Ceiling Cassette (FWL6CM) FCUs



- Air flow: 500 to 1000 CFM • ESP: Up to 12Pa • 2-pipe: 2-row coil • 4-pipe: 2-row coil
- Supplied with remote controller, 5mm nylon filter and terminal box

Options: for all Cassette units



Auxiliary drain pan
for valve package



DC motor



Control valve
(2-way & 3-way)



Thermostat
(Manual/LCD/Remote)



Electric heater

Water Cooled Low Static High Wall Mounted (FWLWM) FCUs



- Air flow: 200 to 800 CFM • ESP: Up to 12Pa • ABS plastic casing • 2-row coil (9.52mm OD copper tube)
- Supplied with remote controller, 5mm nylon filter and terminal box

Options:



Supplied factory
fitted inside casing



EC motor



Control valve
(2-way & 3-way)

Optional Extras

Blue Star FCUs come with various value-added optional accessories that make the range very versatile:



Complete Control Valve Package with ON/OFF type spring-loaded actuator and thermostat



Mechanical Thermostat with both Cool and Heat models, fan speed selection, room temperature setting and motorised valve control



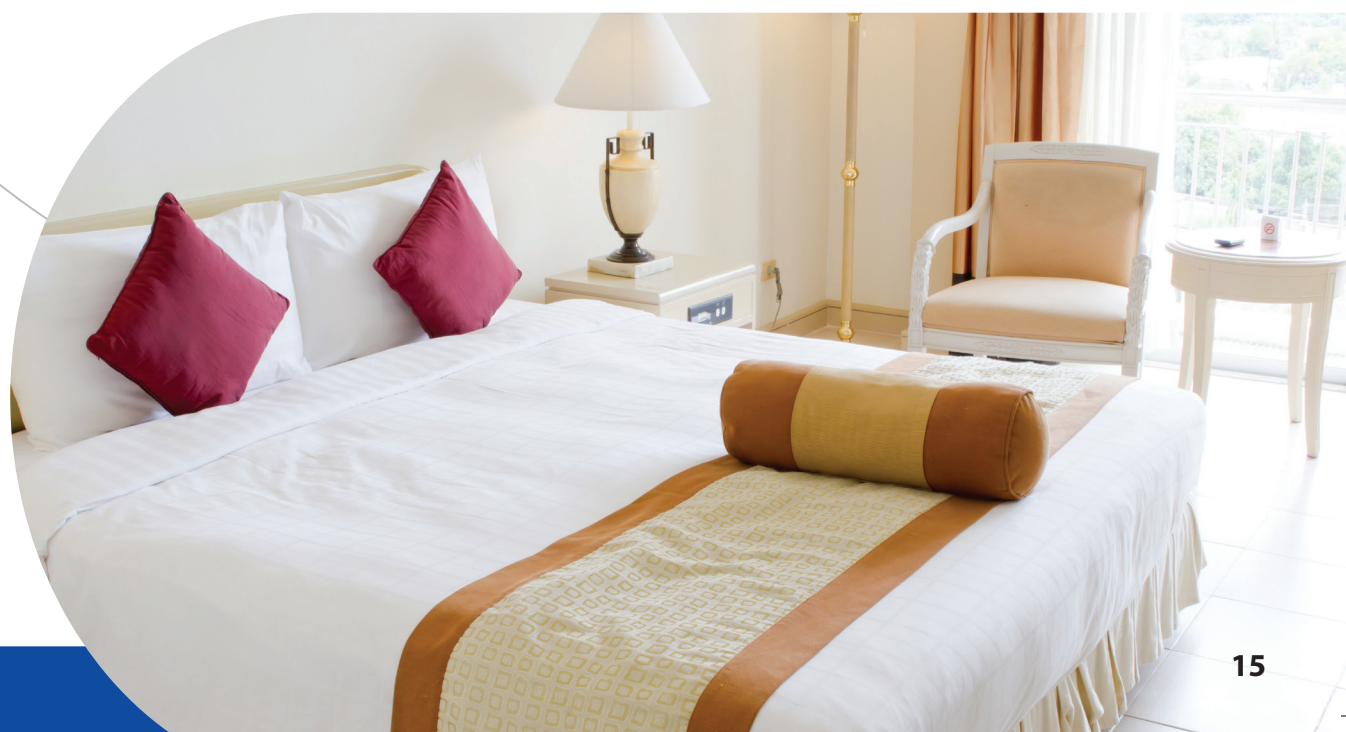
Electronic Thermostat with LCD display, selection of Cool, Heat, or Vent Modes, allowing Auto Random Restart and Weekly Timer Setting



Motorised Valve in brass conforming to European pressure equipment directive PED 97/23/EC, with actuators that conform to protection requirement of council directive 89/336/EEC, offering low power consumption and low noise operation



PTC Electric Heaters with over-heat protect function



Tested for Performance



Dimensional verification

Physical dimensions are verified against GA drawings so that the finished unit matches space requirements at the site.



Voltage, current and wattage

While the FCU runs, voltage, current and wattage readings are noted using a digital meter.



Fan/Motor RPM

The FCU is run for half an hour after which a contactless tachometer is used to measure fan and motor RPM.



Fan bearing temperature

Fan bearing temperature is noted using an infrared temperature gun.



Coil leaks

Compressed air is charged into the brazed water-cooled coil up to a pressure of 325psig (450psig for Dx type coils), and the coil is then dipped into a water tank for a while to check for leaks.

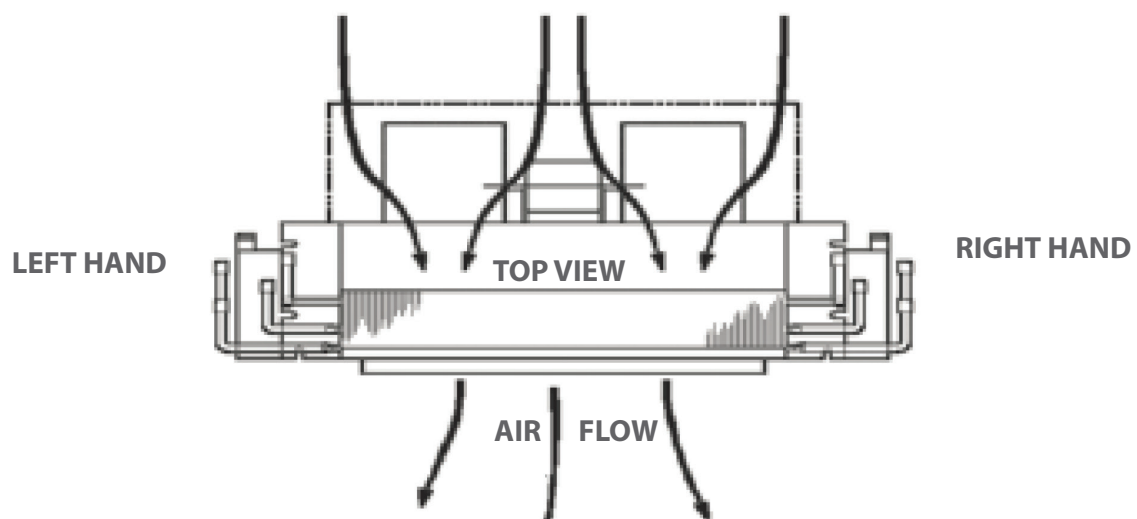
The above tests ensure that the units that leave Blue Star's factory are ready for a rugged performance in the field. Customers can even witness their AHUs undergoing the tests before being shipped to the site.



General Arrangement

To ensure flexibility of design, all Blue Star FCUs allow piping connection from either the left or the right side, thereby allowing easy fit whichever orientation the FCU is placed with respect to the piping.

Determination of Right hand/Left hand pipe connection.



Technical Specification

General Data - FWLCD (Fan Coil Unit Water Cooled Low Static Ceiling Ducted)

	Model No	FWLCD-20	FWLCD-30	FWLCD-40	FWLCD-50	FWLCD-60	FWLCD-80
	Nominal Air Volume (cfm)	200	300	400	500	600	800
Coil	Copper tube	3/8"(9.52mm) OD seamless copper tube					
	Fins	Hi-efficiency wavy corrugated aluminum blue fins					
	Fins per Inch (fpi)	12	12	12	12	12	12
	Coil Length (mm)	490	590	690	790	920	1240
	Coil Height (mm)	200	200	200	200	200	200
Fan	Fan type	Double inlet centrifugal forward curve, steel wheel, direct driven					
	Quantity (No)	1	2	2	2	2	3
AC Motor	Voltage (V)	220-240V/1Ph/50-60HZ,110-127V/1Ph/50HZ					
	Motor Speed	4 speed					
	Quantity (No)	1	1	1	1	1	2
	Max Power Input (W)	49	68	80	84	105	131
EC Motor	Voltage (V)	220-240V/1Ph/50-60HZ,110-127V/1Ph/50HZ					
	Quantity (No)	1	1	1	1	1	2
	Max Power Input (W)	17	29	38	50	106	94
Fan sound level @ 1 mtr	H (dBA)	36	37	39	43	44	44
	M (dBA)	27	29	34	45	37	37
	L (dBA)	24	25	29	30	33	33
Water pipe	Cooling coil	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
	Heating coil (4 pipes unit)	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
Drain pipe		3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP
Dimension	Length (mm)	780	880	980	1080	1280	1580
	Width (mm)	527	527	527	527	527	527
	Height (mm)	265	265	265	265	265	265
Weight	Net Weight (kg)	19	21	22	24	26	36

General Data - FWLCD (Fan Coil Unit Water Cooled Low Static Ceiling Ducted)

	Model No	FWLCD-100	FWLCD-120	FWLCD-140	FWLCD-160	FWLCD-180	FWLCD-200
	Nominal Air Volume (cfm)	1000	1200	1400	1600	1800	2000
Coil	Copper tube	3/8"(9.52mm)OD seamless copper tube					
	Fins	Hi-efficiency wavy corrugated aluminum blue fins					
	Fins per Inch (fpi)	12	12	12	12	12	12
	Coil Length (mm)	1440	1650	1750	1640	1800	1900
	Coil Height (mm)	200	200	200	250	250	250
Fan	Fan type	Double inlet centrifugal forward curve, steel wheel, direct driven					
	Quantity (No)	4	4	4	4	4	4
AC Motor	Voltage (V)	220-240V/1Ph/50-60HZ,110-127V/1Ph/50HZ					
	Motor Speed	4 speed					
	Quantity (No)	2	2	2	2	2	2
	Max Power Input (W)	169	225	260	298	355	425
EC Motor	Voltage (V)	220-240V/1Ph/50-60HZ,110-127V/1Ph/50HZ					
	Quantity (No)	2	2	2			
	Max Power Input (W)	117	140	192			
Fan sound level @ 1 mtr	H (dBA)	46	48	52	49	50	52
	M (dBA)	38	39	46	47	48	48
	L (dBA)	34	35	37	38	39	41
Water pipe	Cooling coil	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
	Heating coil (4 pipes unit)	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
Drain pipe		3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP
Dimension	Length (mm)	1790	1980	2080	1980	2080	2140
	Width (mm)	527	527	527	587	587	587
	Height (mm)	265	265	265	315	315	315
Weight	Net Weight (kg)	37	45	48	52	56	58

Performance Data - FWLCD

The performance data lists regular EU standard, ARI 440 standard and District Cooling	
Standard rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°CWB	Heating: Entering air temperature: +20°C DB
Water inlet/outlet: +7/12°C	Water inlet temperature: +50°C
ESP: 50Pa	Water flow rate as for the cooling conditions
	ESP:50Pa

3 Rows, 2 Pipes

	Model No	FWLCD3-20	FWLCD3-30	FWLCD3-40	FWLCD3-50	FWLCD3-60	FWLCD3-80
Air flow	H (cfm)	269	391	469	490	603	711
	M (cfm)	214	320	339	362	444	518
	L (cfm)	170	198	217	234	351	370
Total Cooling Capacity	H (kW)	2.56	3.66	4.12	4.57	5.72	7.02
	M (kW)	2.18	3.18	3.29	3.69	4.59	5.59
	L (kW)	1.84	1.93	2.24	2.68	3.87	4.35
Sensible Cooling Capacity	H (kW)	1.83	2.61	3.01	3.27	4.05	4.94
	M (kW)	1.54	2.24	2.35	2.60	3.20	3.87
	L (kW)	1.28	1.54	1.66	1.84	2.67	2.96
Heating Capacity	H (kW)	2.94	4.12	4.82	5.23	6.41	7.87
	M (kW)	2.48	3.57	3.82	4.21	5.14	6.23
	L (kW)	2.10	2.51	2.71	3.01	4.29	4.81
Water Flow Rate	H (L/S)	0.12	0.17	0.20	0.22	0.27	0.34
	M (L/S)	0.10	0.15	0.16	0.18	0.22	0.27
	L (L/S)	0.09	0.11	0.11	0.13	0.18	0.21
Water Pressure Drop	H (kPa)	10.21	19.71	10.51	13.81	21.58	19.59
	M (kPa)	8.26	16.38	7.82	10.43	16.19	14.51
	L (kPa)	6.62	10.35	5.13	6.85	12.93	10.44

4 Rows, 2 Pipes

	Model No	FWLCD4-20	FWLCD4-30	FWLCD4-40	FWLCD4-50	FWLCD4-60	FWLCD4-80
Air flow	H (cfm)	253	370	441	466	569	677
	M (cfm)	205	308	326	349	426	498
	L (cfm)	163	191	209	222	336	355
Total Cooling Capacity	H (kW)	3.17	4.53	5.17	5.70	7.02	8.64
	M (kW)	2.71	3.95	4.14	4.60	5.65	6.82
	L (kW)	2.26	2.30	2.72	3.22	4.70	5.20
Sensible Cooling Capacity	H (kW)	2.14	3.06	3.55	3.86	4.74	5.78
	M (kW)	1.81	2.64	2.79	3.07	3.75	4.50
	L (kW)	1.49	1.78	1.93	2.10	3.09	3.38
Heating Capacity	H (kW)	3.32	4.71	5.49	5.96	7.27	8.90
	M (kW)	2.82	4.08	4.36	4.77	5.80	6.99
	L (kW)	2.34	2.77	3.05	3.29	4.79	5.28
Water Flow Rate	H (L/S)	0.15	0.22	0.25	0.27	0.34	0.41
	M (L/S)	0.13	0.19	0.20	0.22	0.27	0.33
	L (L/S)	0.11	0.13	0.14	0.15	0.22	0.25
Water Pressure Drop	H (kPa)	17.65	32.52	18.29	23.54	35.16	32.29
	M (kPa)	14.60	27.57	14.03	18.20	27.10	24.37
	L (kPa)	11.78	17.67	9.32	11.91	21.77	17.62

3 Rows, 2 Pipes

	Model No	FWLCD3-100	FWLCD3-120	FWLCD3-140	FWLCD3-160	FWLCD3-180	FWLCD3-200
Air flow	H (cfm)	980	1088	1205	1390	1614	1874
	M (cfm)	666	825	890	1123	1217	1297
	L (cfm)	456	592	695	820	868	903
Total Cooling Capacity	H (kW)	9.47	10.84	11.97	13.73	15.20	17.57
	M (kW)	7.17	8.87	9.61	11.78	12.44	13.52
	L (kW)	5.41	6.93	8.00	9.34	9.71	10.35
Sensible Cooling Capacity	H (kW)	6.63	7.52	8.28	9.54	10.74	12.37
	M (kW)	4.94	6.08	6.57	8.10	8.67	9.36
	L (kW)	3.66	4.68	5.41	6.34	6.66	7.05
Heating Capacity	H (kW)	10.44	11.82	12.97	14.98	16.95	19.42
	M (kW)	7.88	9.64	10.40	12.81	13.81	14.90
	L (kW)	5.91	7.50	8.63	10.14	10.72	11.33
Water Flow Rate	H (L/S)	0.45	0.52	0.57	0.66	0.73	0.84
	M (L/S)	0.34	0.42	0.46	0.56	0.59	0.65
	L (L/S)	0.26	0.33	0.38	0.45	0.46	0.49
Water Pressure Drop	H (kPa)	33.67	46.13	55.66	46.61	27.43	36.11
	M (kPa)	23.37	35.44	41.72	38.10	21.09	25.57
	L (kPa)	16.13	25.61	32.78	28.10	15.24	18.00

4 Rows, 2 Pipes

	Model No	FWLCD4-100	FWLCD4-120	FWLCD4-140	FWLCD4-160	FWLCD4-180	FWLCD4-200
Air flow	H (cfm)	932	1037	1147	1319	1539	1788
	M (cfm)	639	800	865	1098	1176	1254
	L (cfm)	434	572	671	801	836	869
Total Cooling Capacity	H (kW)	11.59	13.17	14.50	16.65	18.76	21.62
	M (kW)	8.71	10.81	11.70	14.49	15.35	16.59
	L (kW)	6.38	8.30	9.57	11.33	11.78	12.45
Sensible Cooling Capacity	H (kW)	7.78	8.78	9.67	11.12	12.67	14.59
	M (kW)	5.74	7.13	7.71	9.59	10.22	11.00
	L (kW)	4.14	5.39	6.23	7.40	7.72	8.12
Heating Capacity	H (kW)	11.85	13.36	14.66	16.89	19.34	22.18
	M (kW)	8.85	10.92	11.79	14.65	15.73	16.89
	L (kW)	6.43	8.33	9.60	11.40	11.98	12.58
Water Flow Rate	H (L/S)	0.55	0.63	0.69	0.79	0.90	1.03
	M (L/S)	0.42	0.52	0.56	0.69	0.73	0.79
	L (L/S)	0.30	0.40	0.46	0.54	0.56	0.59
Water Pressure Drop	H (kPa)	53.28	71.13	84.61	71.67	44.32	57.05
	M (kPa)	37.85	56.19	65.52	60.70	34.87	41.57
	L (kPa)	26.13	40.94	51.53	45.25	25.41	29.49

3+1 Rows, 4 Pipes

	Model No	FWLCD31-20	FWLCD31-30	FWLCD31-40	FWLCD31-50	FWLCD31-60	FWLCD31-80
Air flow	H (cfm)	253	370	441	466	569	677
	M (cfm)	205	308	326	349	426	498
	L (cfm)	155	163	191	223	337	355
Total Cooling Capacity	H (kW)	2.45	3.53	3.94	4.41	5.49	6.79
	M (kW)	2.12	3.12	3.22	3.62	4.49	5.46
	L (kW)	1.79	1.85	2.18	2.58	3.75	4.21
Sensible Cooling Capacity	H (kW)	1.75	2.50	2.87	3.15	3.88	4.76
	M (kW)	1.42	2.07	2.17	2.40	2.95	3.56
	L (kW)	1.24	1.27	1.49	1.77	2.58	2.86
Heating Capacity	H (kW)	2.08	2.95	3.28	3.70	4.59	5.74
	M (kW)	1.80	2.59	2.70	3.06	3.78	4.66
	L (kW)	1.59	1.72	1.95	2.34	3.31	3.82
Cooling Water Flow Rate	H (L/S)	0.12	0.17	0.19	0.21	0.26	0.32
	M (L/S)	0.10	0.15	0.15	0.17	0.21	0.26
	L (L/S)	0.09	0.09	0.10	0.12	0.18	0.20
Cooling Water Pressure Drop	H (kPa)	9.66	18.77	9.93	13.19	20.46	18.73
	M (kPa)	8.00	15.94	7.61	10.17	15.71	14.06
	L (kPa)	3.68	6.37	9.96	6.53	12.42	10.01
Heating Water Flow Rate	H (L/S)	0.05	0.07	0.08	0.09	0.11	0.14
	M (L/S)	0.04	0.06	0.06	0.07	0.09	0.11
	L (L/S)	0.04	0.04	0.05	0.06	0.08	0.09
Heating Water Pressure Drop	H (kPa)	1.99	3.85	3.00	4.05	6.32	7.81
	M (kPa)	1.63	3.23	2.29	3.11	4.84	5.87
	L (kPa)	1.23	1.37	2.19	2.16	4.05	4.48

ARI- 440 Standard Rating

The following rating conditions are used:

Cooling: Entering air temperature: +80°FDB; +67°FWB

Heating: Entering air temperature: +68°FDB

Water inlet/outlet: +45/55°F

Water inlet temperature: +140°F

 ESP: 0.2 in H₂O

Water flow rate as for the cooling conditions

 ESP: 0.2 in H₂O

3 Rows, 2 Pipes

	Model No	FWLCD3-20	FWLCD3-30	FWLCD3-40	FWLCD3-50	FWLCD3-60	FWLCD3-80
Air flow	H (cfm)	269	391	469	490	603	711
	M (cfm)	214	320	339	362	444	518
	L (cfm)	170	198	217	234	351	370
Total Cooling Capacity	H (Btu/h)	8055	11570	12867	14403	18089	22253
	M (Btu/h)	6860	10068	10341	11672	14608	17782
	L (Btu/h)	5836	6109	7167	8533	12321	13925
Sensible Cooling Capacity	H (Btu/h)	5904	8430	9693	10546	13106	15973
	M (Btu/h)	4983	7236	7577	8396	10376	12526
	L (Btu/h)	4164	4983	5358	5973	8635	9625
Heating Capacity	H (Btu/h)	13004	18396	21126	23106	28533	34915
	M (Btu/h)	11126	15939	16826	18669	22935	27816
	L (Btu/h)	9215	11126	12184	13447	19249	21536
Water Flow Rate	H (Gpm)	1.59	2.38	2.54	2.85	3.65	4.44
	M (Gpm)	1.43	2.06	2.06	2.38	3.01	3.65
	L (Gpm)	1.11	1.43	1.59	1.74	2.54	2.85
Water Pressure Drop	H (ftH ₂ O)	2.71	5.26	2.77	3.67	5.77	5.25
	M (ftH ₂ O)	2.20	4.39	2.07	2.78	4.35	3.91
	L (ftH ₂ O)	1.77	2.80	1.37	1.84	3.49	2.83

3+1 Rows, 4 Pipes

	Model No	FWLCD31-100	FWLCD31-120	FWLCD31-140	FWLCD31-160	FWLCD31-180	FWLCD31-200
Air flow	H (cfm)	933	1037	1148	1320	1540	1789
	M (cfm)	640	801	866	1098	1177	1255
	L (cfm)	434	573	671	801	837	870
Total Cooling Capacity	H (kW)	9.14	10.48	11.56	13.23	14.70	17.01
	M (kW)	7.00	8.73	9.47	11.66	12.22	13.28
	L (kW)	5.20	6.76	7.78	9.18	9.45	10.06
Sensible Cooling Capacity	H (kW)	6.39	7.25	7.98	9.17	10.37	11.95
	M (kW)	4.55	5.65	6.12	7.59	8.04	8.68
	L (kW)	3.51	4.56	5.26	6.22	6.47	6.84
Heating Capacity	H (kW)	7.61	8.76	9.62	11.03	12.20	14.02
	M (kW)	5.93	7.33	7.94	9.69	10.19	11.10
	L (kW)	4.71	6.03	6.87	8.07	8.36	8.95
Cooling Water Flow Rate	H (L/S)	0.44	0.50	0.55	0.63	0.70	0.81
	M (L/S)	0.33	0.42	0.45	0.56	0.58	0.63
	L (L/S)	0.25	0.32	0.37	0.44	0.45	0.48
Cooling Water Pressure Drop	H (kPa)	32.17	44.08	53.19	44.43	26.28	34.58
	M (kPa)	22.64	34.70	40.94	37.62	20.61	24.98
	L (kPa)	15.33	24.77	31.63	27.46	14.70	17.34
Heating Water Flow Rate	H (L/S)	0.18	0.21	0.23	0.26	0.29	0.33
	M (L/S)	0.14	0.18	0.19	0.23	0.24	0.26
	L (L/S)	0.11	0.14	0.16	0.19	0.20	0.21
Heating Water Pressure Drop	H (kPa)	6.67	9.25	11.15	11.62	9.44	12.41
	M (kPa)	4.73	7.26	8.59	9.73	7.38	9.01
	L (kPa)	3.45	5.55	7.04	7.58	5.63	6.72

3 Rows, 2 Pipes

	Model No	FWLCD3-100	FWLCD3-120	FWLCD3-140	FWLCD3-160	FWLCD3-180	FWLCD3-200
Air flow	H (cfm)	980	1088	1205	1390	1614	1874
	M (cfm)	666	825	890	1123	1217	1297
	L (cfm)	456	592	695	820	868	903
Total Cooling Capacity	H (Btu/h)	30103	34608	38226	43789	48157	55768
	M (Btu/h)	22901	28396	30785	37645	39557	43106
	L (Btu/h)	17338	22253	25700	29966	31024	33140
Sensible Cooling Capacity	H (Btu/h)	21502	24403	26894	30956	34744	40069
	M (Btu/h)	16007	19761	21365	26314	28089	30342
	L (Btu/h)	11911	15256	17611	20615	21604	22901
Heating Capacity	H (Btu/h)	46485	52697	57953	66827	75291	86451
	M (Btu/h)	35188	43106	46485	57270	61502	66451
	L (Btu/h)	26417	33550	38703	45325	47850	50649
Water Flow Rate	H (Gpm)	6.02	6.97	7.77	8.88	9.67	11.25
	M (Gpm)	4.60	5.71	6.18	7.61	7.93	8.72
	L (Gpm)	3.49	4.44	5.23	6.02	6.18	6.66
Water Pressure Drop	H (ftH ₂ O)	9.05	12.46	15.06	12.59	7.34	9.68
	M (ftH ₂ O)	6.32	9.61	11.33	10.32	5.67	6.90
	L (ftH ₂ O)	4.39	6.98	8.93	7.64	4.12	4.88

4 Rows, 2 Pipes

	Model No	FWLCD4-20	FWLCD4-30	FWLCD4-40	FWLCD4-50	FWLCD4-60	FWLCD4-80
Air flow	H (cfm)	253	370	441	466	569	677
	M (cfm)	205	308	326	349	426	498
	L (cfm)	163	191	209	222	336	355
Total Cooling Capacity	H (Btu/h)	10171	14574	16519	18294	22594	27850
	M (Btu/h)	8703	12730	13277	14812	18225	22082
	L (Btu/h)	7304	7474	8806	10444	15222	16928
Sensible Cooling Capacity	H (Btu/h)	6963	9966	11502	12560	15427	18874
	M (Btu/h)	5870	8601	9079	10000	12253	14710
	L (Btu/h)	4881	5802	6314	6860	10102	11058
Heating Capacity	H (Btu/h)	14881	21092	24505	26656	32560	39864
	M (Btu/h)	12628	18260	19522	21400	26007	31365
	L (Btu/h)	10478	12457	13686	14812	21536	23823
Water Flow Rate	H (Gpm)	2.06	3.01	3.33	3.65	4.60	5.55
	M (Gpm)	1.74	2.54	2.69	3.01	3.65	4.44
	L (Gpm)	1.43	1.74	1.90	2.06	3.01	3.49
Water Pressure Drop	H (ftH ₂ O)	4.90	9.03	5.04	6.53	9.78	9.00
	M (ftH ₂ O)	4.06	7.69	3.89	5.07	7.57	6.83
	L (ftH ₂ O)	3.29	4.97	2.61	3.35	6.11	4.96

3+1 Rows, 4 Pipes

	Model No	FWLCD31-20	FWLCD31-30	FWLCD31-40	FWLCD31-50	FWLCD31-60	FWLCD31-80
Air flow	H (cfm)	253	370	441	466	569	677
	M (cfm)	205	308	326	349	426	498
	L (cfm)	155	163	191	223	337	355
Total Cooling Capacity	H (Btu/h)	7713	11161	12355	13925	17372	21536
	M (Btu/h)	6655	9795	10068	11399	14198	17304
	L (Btu/h)	5666	5904	6963	8225	11980	13481
Sensible Cooling Capacity	H (Btu/h)	5631	8089	9249	10171	12526	15393
	M (Btu/h)	4812	7031	7372	8157	10068	12150
	L (Btu/h)	4027	4096	4846	5734	8362	9283
Heating Capacity	H (Btu/h)	6212	9079	9522	11161	14232	17952
	M (Btu/h)	5495	8157	8055	9488	12048	15017
	L (Btu/h)	4812	5222	6143	7270	10478	12253
Cooling Water Flow Rate	H (Gpm)	1.59	2.22	2.54	2.85	3.49	4.28
	M (Gpm)	1.27	1.90	2.06	2.22	2.85	3.49
	L (Gpm)	1.11	1.11	1.43	1.59	2.38	2.69
Cooling Water Pressure Drop	H (ftH ₂ O)	2.57	5.01	2.62	3.51	4.47	5.02
	M (ftH ₂ O)	2.12	4.23	2.00	2.70	4.19	3.77
	L (ftH ₂ O)	1.71	0.99	2.69	1.76	3.35	2.72
Heating Water Flow Rate	H (Gpm)	0.32	0.48	0.48	0.63	0.63	0.95
	M (Gpm)	0.32	0.48	0.48	0.48	0.63	0.79
	L (Gpm)	0.32	0.32	0.32	0.32	0.48	0.63
Heating Water Pressure Drop	H (ftH ₂ O)	0.18	0.37	0.27	0.38	0.62	0.78
	M (ftH ₂ O)	0.16	0.32	0.21	0.31	0.50	0.61
	L (ftH ₂ O)	0.13	0.12	0.22	0.21	0.41	0.46

4 Rows, 2 Pipes

	Model No	FWLCD4-100	FWLCD4-120	FWLCD4-140	FWLCD4-160	FWLCD4-180	FWLCD4-200
Air flow	H (cfm)	932	1037	1147	1319	1539	1788
	M (cfm)	639	800	865	1098	1176	1254
	L (cfm)	434	572	671	801	836	869
Total Cooling Capacity	H (Btu/h)	37406	42594	46929	53823	60410	69659
	M (Btu/h)	28226	35086	37987	46963	49591	53686
	L (Btu/h)	20785	27031	31161	36860	38226	40478
Sensible Cooling Capacity	H (Btu/h)	25393	28703	31604	36314	41263	47577
	M (Btu/h)	18772	23311	25222	31365	33345	35939
	L (Btu/h)	13550	17679	20444	24232	25222	26587
Heating Capacity	H (Btu/h)	53243	59966	65905	75837	86690	99489
	M (Btu/h)	39761	49147	52970	65905	70615	75871
	L (Btu/h)	28942	37475	43277	51366	53925	56622
Water Flow Rate	H (Gpm)	7.61	8.56	9.51	10.78	12.20	14.11
	M (Gpm)	5.71	7.13	7.61	9.51	9.99	10.78
	L (Gpm)	4.12	5.39	6.34	7.45	7.77	8.08
Water Pressure Drop	H (ftH ₂ O)	14.87	19.91	23.70	20.05	12.33	15.90
	M (ftH ₂ O)	10.62	15.79	18.41	17.03	9.75	11.64
	L (ftH ₂ O)	7.38	11.56	14.54	12.75	7.14	8.31

3+1 Rows, 4 Pipes

	Model No	FWLCD31-100	FWLCD31-120	FWLCD31-140	FWLCD31-160	FWLCD31-180	FWLCD31-200
Air flow	H (cfm)	933	1037	1148	1320	1540	1789
	M (cfm)	640	801	866	1098	1177	1255
	L (cfm)	434	573	671	801	837	870
Total Cooling Capacity	H (Btu/h)	29079	33447	36929	42219	46622	54028
	M (Btu/h)	22219	27782	30171	37031	38601	42082
	L (Btu/h)	16690	21707	25017	29454	30205	32253
Sensible Cooling Capacity	H (Btu/h)	20717	23516	25905	29761	33550	38703
	M (Btu/h)	15529	19283	20888	25871	27372	29557
	L (Btu/h)	11434	14847	17099	20239	20990	22219
Heating Capacity	H (Btu/h)	24301	28567	31570	35905	38260	44540
	M (Btu/h)	19454	24505	26724	32219	32765	36212
	L (Btu/h)	15393	20000	22901	26656	26792	29113
Cooling Water Flow Rate	H (Gpm)	5.86	6.82	7.45	8.56	9.35	10.94
	M (Gpm)	4.44	5.55	6.02	7.45	7.77	8.40
	L (Gpm)	3.33	4.44	5.07	5.86	6.02	6.50
Cooling Water Pressure Drop	H (ftH ₂ O)	8.66	11.92	14.39	12.01	7.04	9.29
	M (ftH ₂ O)	6.08	9.34	11.04	10.11	5.50	6.69
	L (ftH ₂ O)	4.17	6.76	8.63	7.47	3.98	4.71
Heating Water Flow Rate	H (Gpm)	1.27	1.43	1.59	1.74	1.90	2.22
	M (Gpm)	0.95	1.27	1.27	1.59	1.59	1.74
	L (Gpm)	0.79	0.95	1.11	1.27	1.27	1.43
Heating Water Pressure Drop	H (ftH ₂ O)	0.68	0.98	1.19	1.22	0.94	1.26
	M (ftH ₂ O)	0.51	0.79	0.95	1.05	0.76	0.95
	L (ftH ₂ O)	0.37	0.60	0.77	0.82	0.58	0.71

District Cooling Standard Rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +24.4 °C DB; +17.2 °C WB	
Water inlet/outlet: +5.5/14.4°C	
ESP: 50Pa	

4 Rows, 2 Pipes

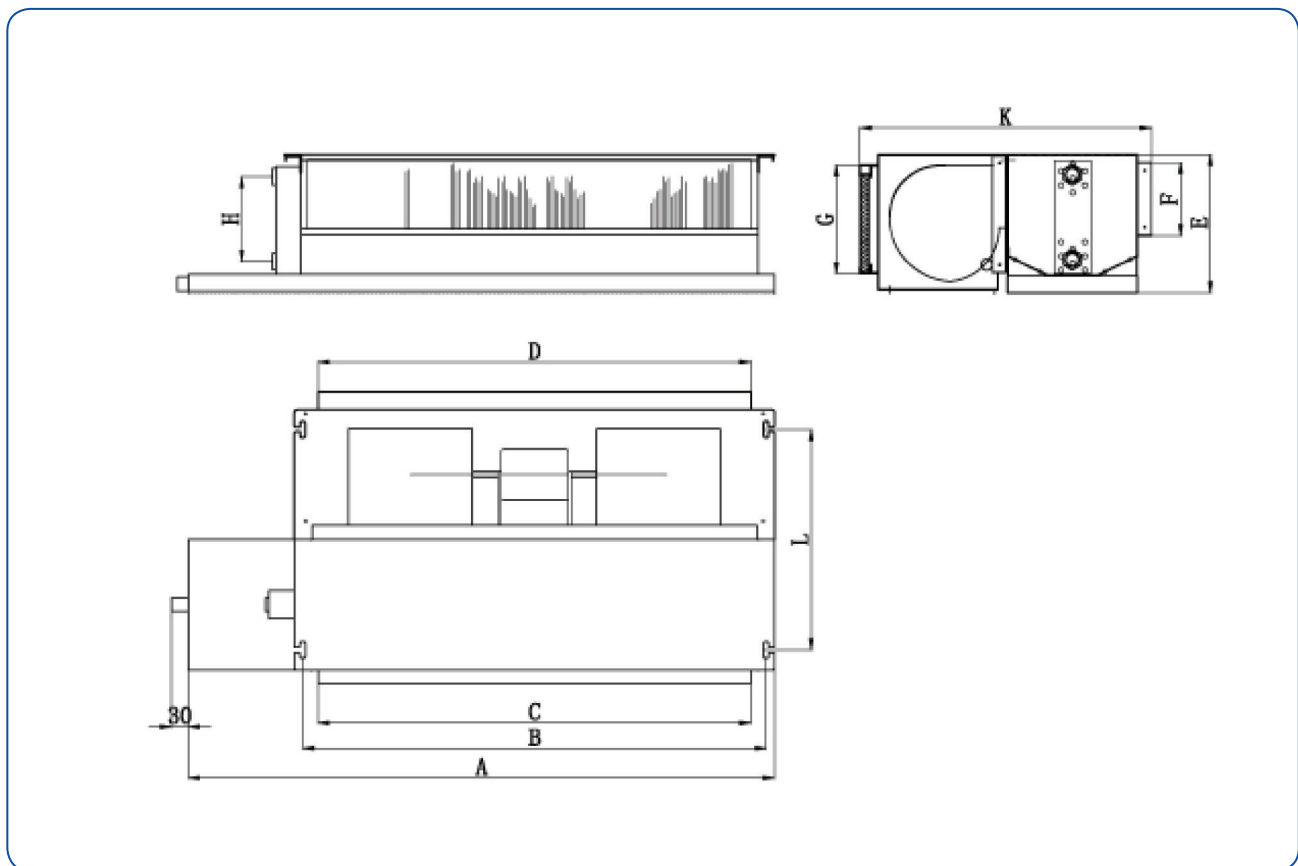
	Model No	FWLCD4-20	FWLCD4-30	FWLCD4-40	FWLCD4-50	FWLCD4-60	FWLCD4-80
Air flow	H (cfm)	253	370	441	466	569	677
	M (cfm)	205	308	326	349	426	498
	L (cfm)	163	191	209	222	336	355
Total Cooling Capacity	H (kW)	2.03	2.95	3.18	3.66	4.62	5.76
	M (kW)	1.77	2.62	2.64	3.04	3.82	4.68
	L (kW)	1.52	1.89	1.97	2.23	3.25	3.69
Sensible Cooling Capacity	H (kW)	1.73	2.49	2.82	3.12	3.86	4.74
	M (kW)	1.46	2.16	2.24	2.50	3.09	3.72
	L (kW)	1.22	1.48	1.58	1.74	2.56	2.83
Water Flow Rate	H (L/S)	0.05	0.08	0.09	0.10	0.12	0.15
	M (L/S)	0.05	0.07	0.07	0.08	0.10	0.13
	L (L/S)	0.04	0.05	0.05	0.06	0.09	0.10
Water Pressure Drop	H (kPa)	5.20	9.80	5.15	6.95	10.71	9.99
	M (kPa)	4.42	8.49	4.11	5.56	8.52	7.80
	L (kPa)	3.67	5.75	2.89	3.85	7.03	5.87

4 Rows, 2 Pipes

	Model No	FWLCD4-100	FWLCD4-120	FWLCD4-140	FWLCD4-160	FWLCD4-180	FWLCD4-200
Air flow	H (cfm)	932	1037	1147	1319	1539	1788
	M (cfm)	639	800	865	1098	1176	1254
	L (cfm)	434	572	671	801	836	869
Total Cooling Capacity	H (kW)	7.80	9.07	10.02	11.43	12.41	14.42
	M (kW)	6.06	7.60	8.27	10.09	10.40	11.40
	L (kW)	4.60	6.00	6.91	8.11	8.24	8.84
Sensible Cooling Capacity	H (kW)	6.41	7.31	8.06	9.24	10.36	11.77
	M (kW)	4.78	5.97	6.48	8.01	8.43	9.13
	L (kW)	3.50	4.57	5.28	6.24	6.44	6.82
Water Flow Rate	H (L/S)	0.21	0.24	0.27	0.31	0.33	0.39
	M (L/S)	0.16	0.20	0.22	0.27	0.28	0.31
	L (L/S)	0.12	0.16	0.19	0.22	0.22	0.24
Water Pressure Drop	H (kPa)	16.67	22.85	27.33	22.95	13.57	17.65
	M (kPa)	12.31	18.52	21.73	19.78	10.99	13.33
	L (kPa)	8.86	13.95	17.52	15.22	8.32	9.84

Dimensional Data - FWLCD

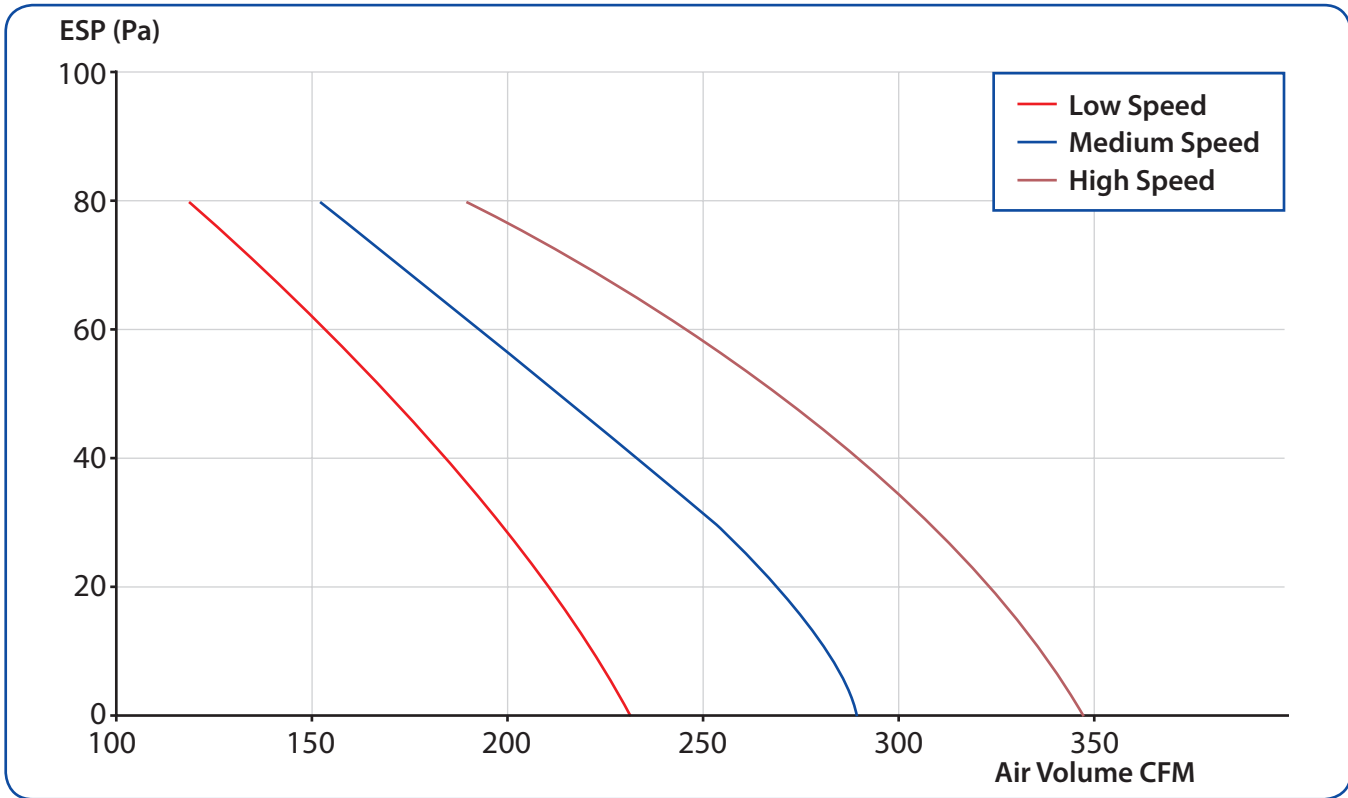
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FWLCD-20	740	522	470	470	245	130	192	150	517	390
FWLCD-30	840	622	570	570	245	130	192	150	517	390
FWLCD-40	940	722	670	670	245	130	192	150	517	390
FWLCD-50	1040	822	770	770	245	130	192	150	517	390
FWLCD-60	1240	952	900	900	245	130	192	150	517	390
FWLCD-80	1540	1272	1220	1220	245	130	192	150	517	390
FWLCD-100	1770	1472	1420	1420	245	130	192	150	517	390
FWLCD-120	1940	1682	1630	1630	245	130	192	150	517	390
FWLCD-140	2040	1782	1730	1730	245	130	192	150	517	390
FWLCD-160	1940	1672	1620	1620	295	180	242	200	577	390
FWLCD-180	2040	1832	1780	1780	295	180	242	200	577	450
FWLCD-200	2100	1932	1880	1880	295	180	242	200	577	450



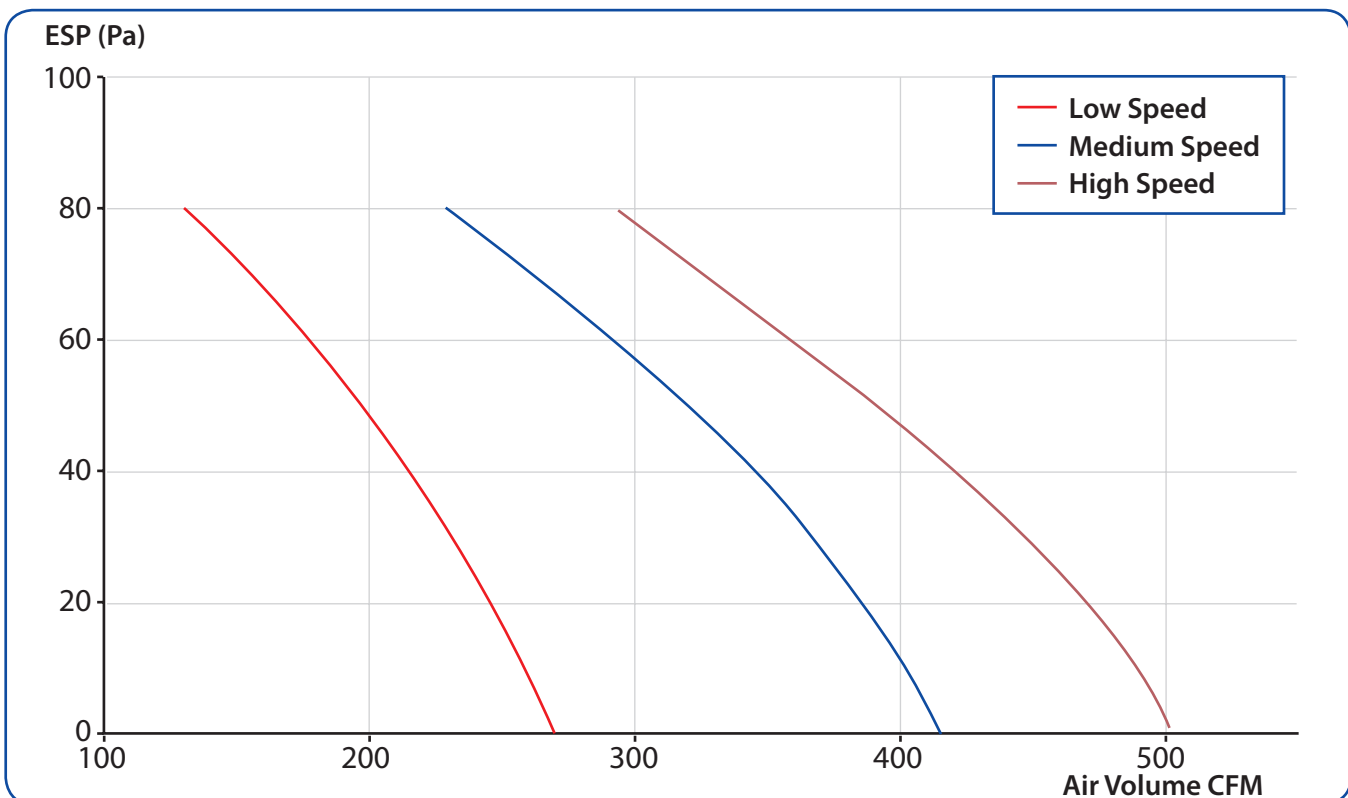
Dimensions are in mm

Air Vol. vs ESP - FWLCD (Fan Coil Unit Water Cooled Low Static Ceiling Ducted)

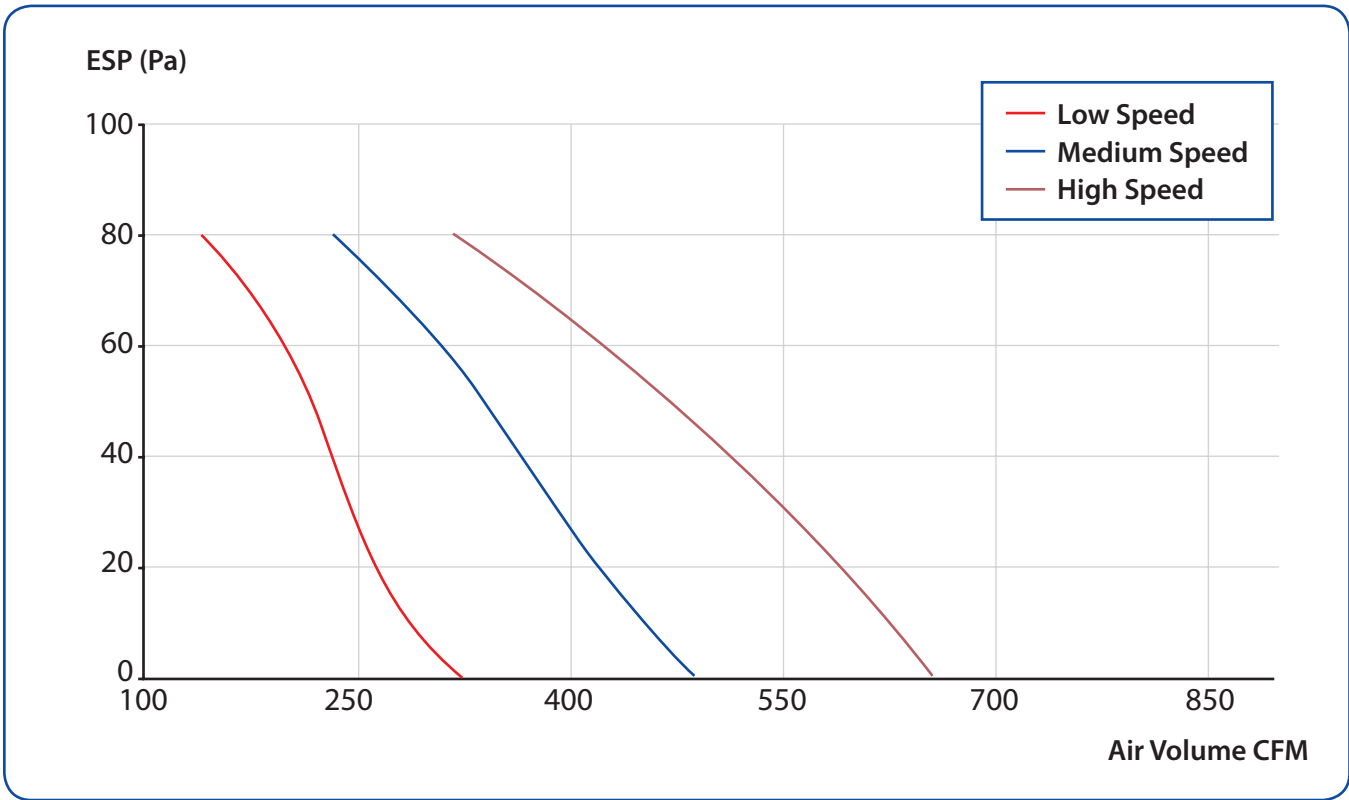
MODEL - FWLCD3



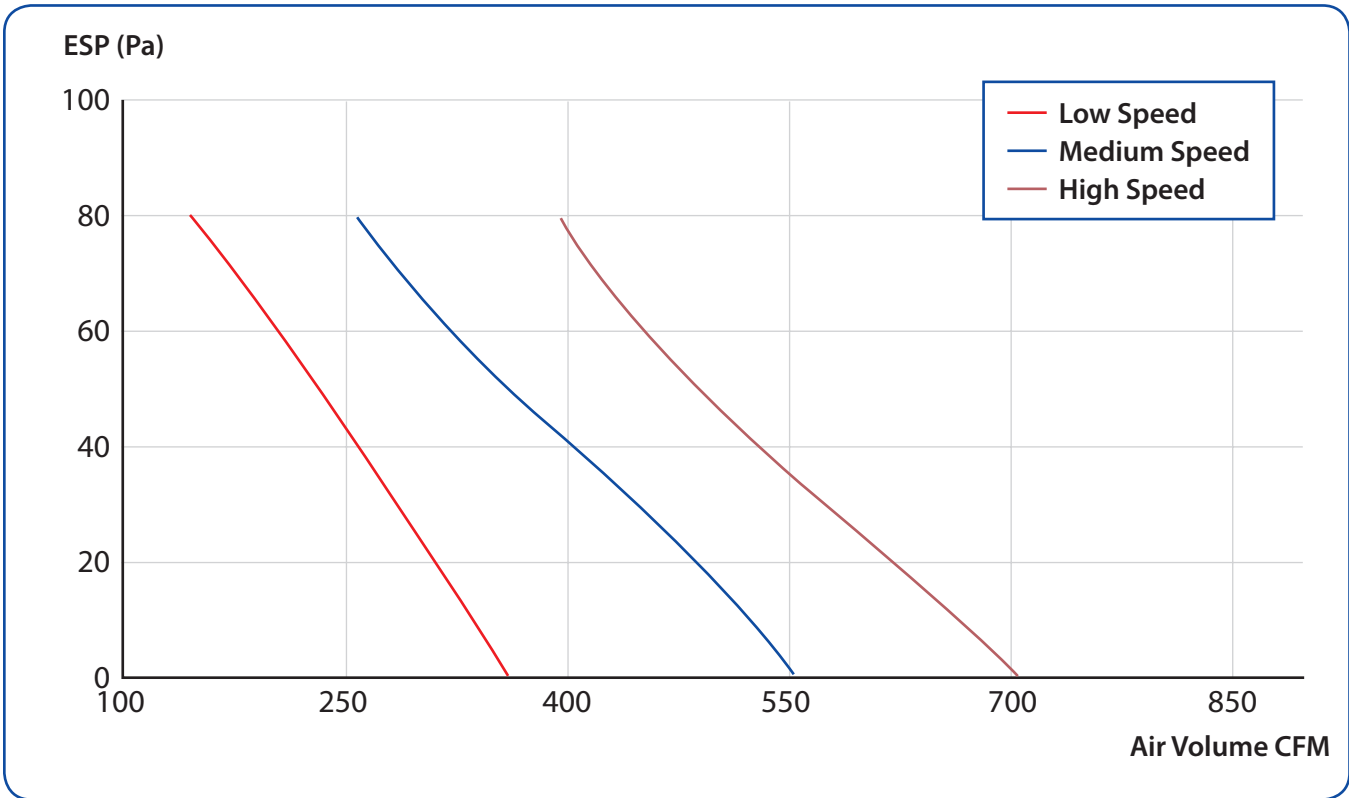
Air Vol. vs ESP for Model No. FWLCD3-20



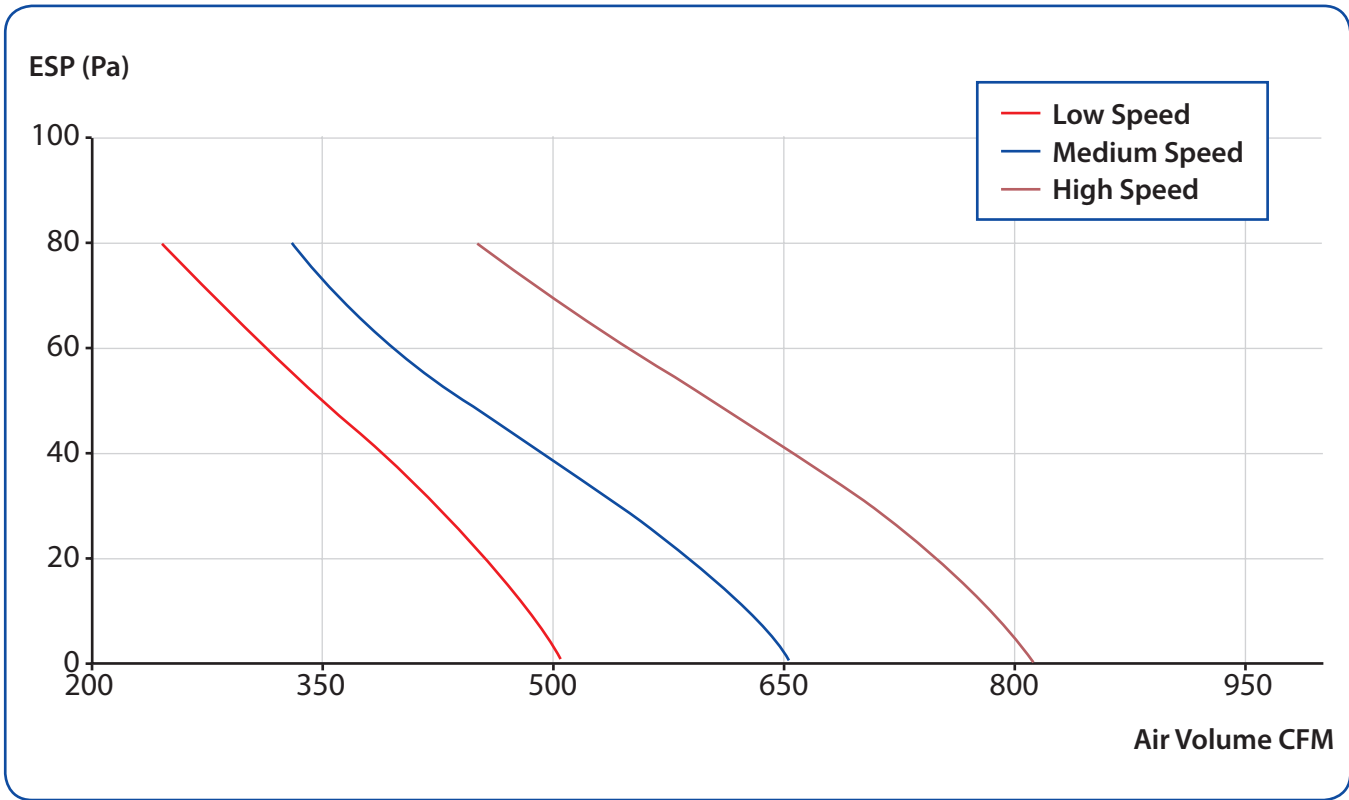
Air Vol. vs ESP for Model No. FWLCD3-30



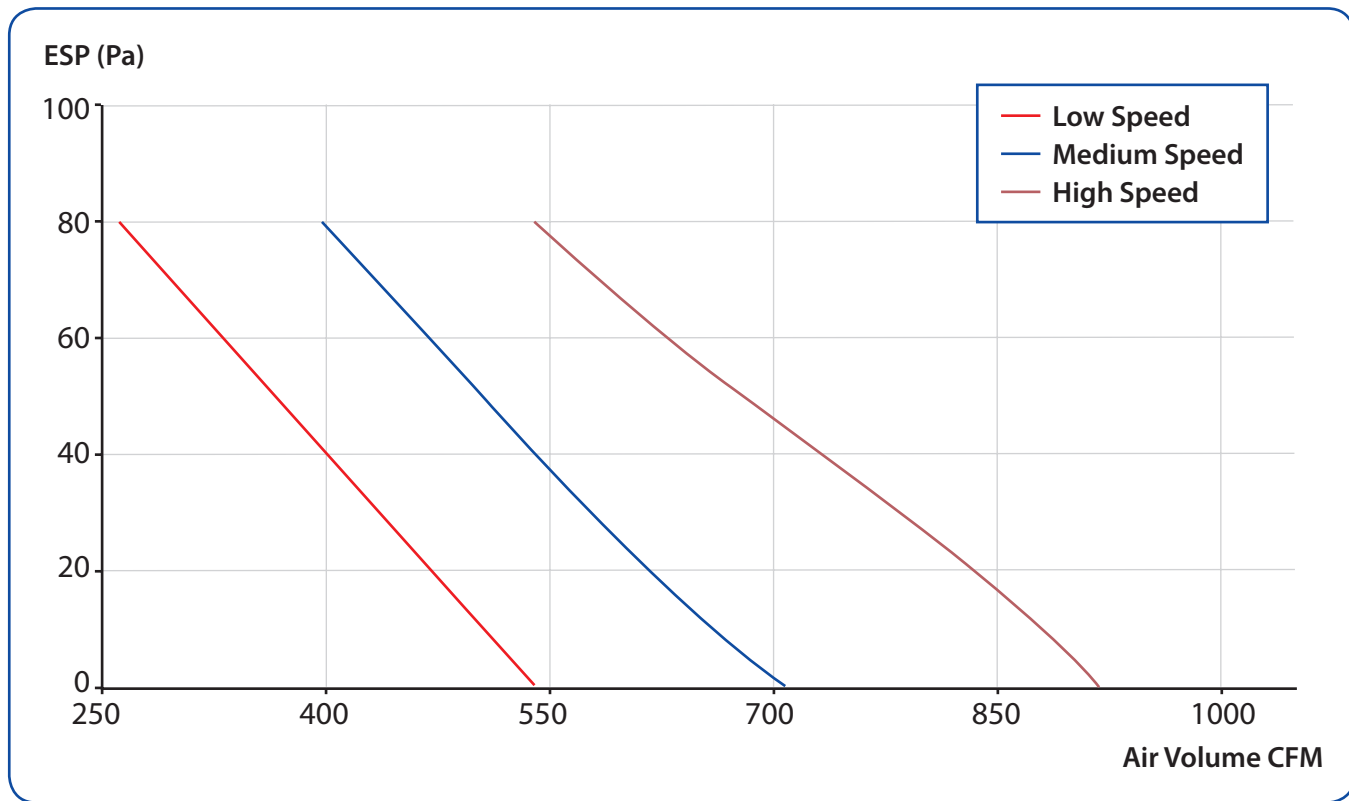
Air Vol. vs ESP for Model No. FWLCD3-40



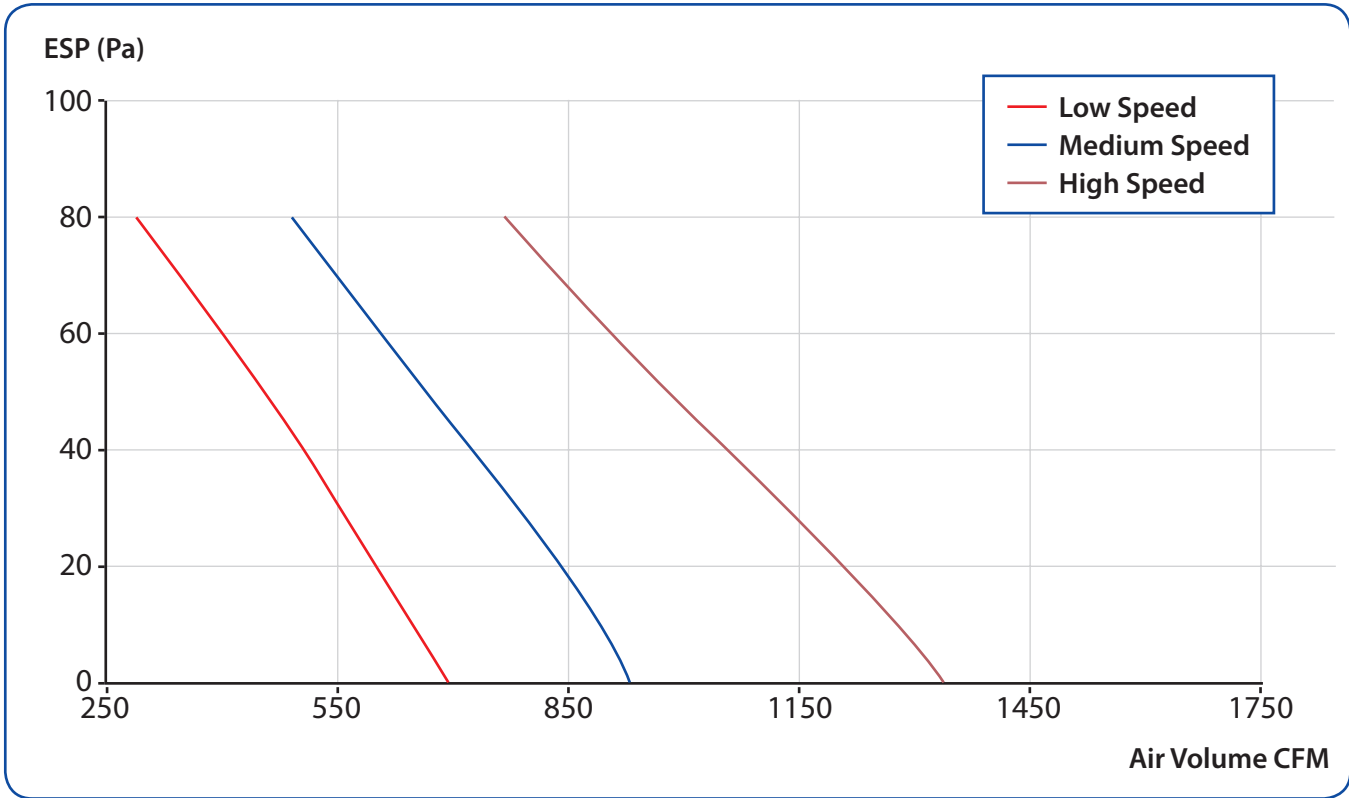
Air Vol. vs ESP for Model No. FWLCD3-50



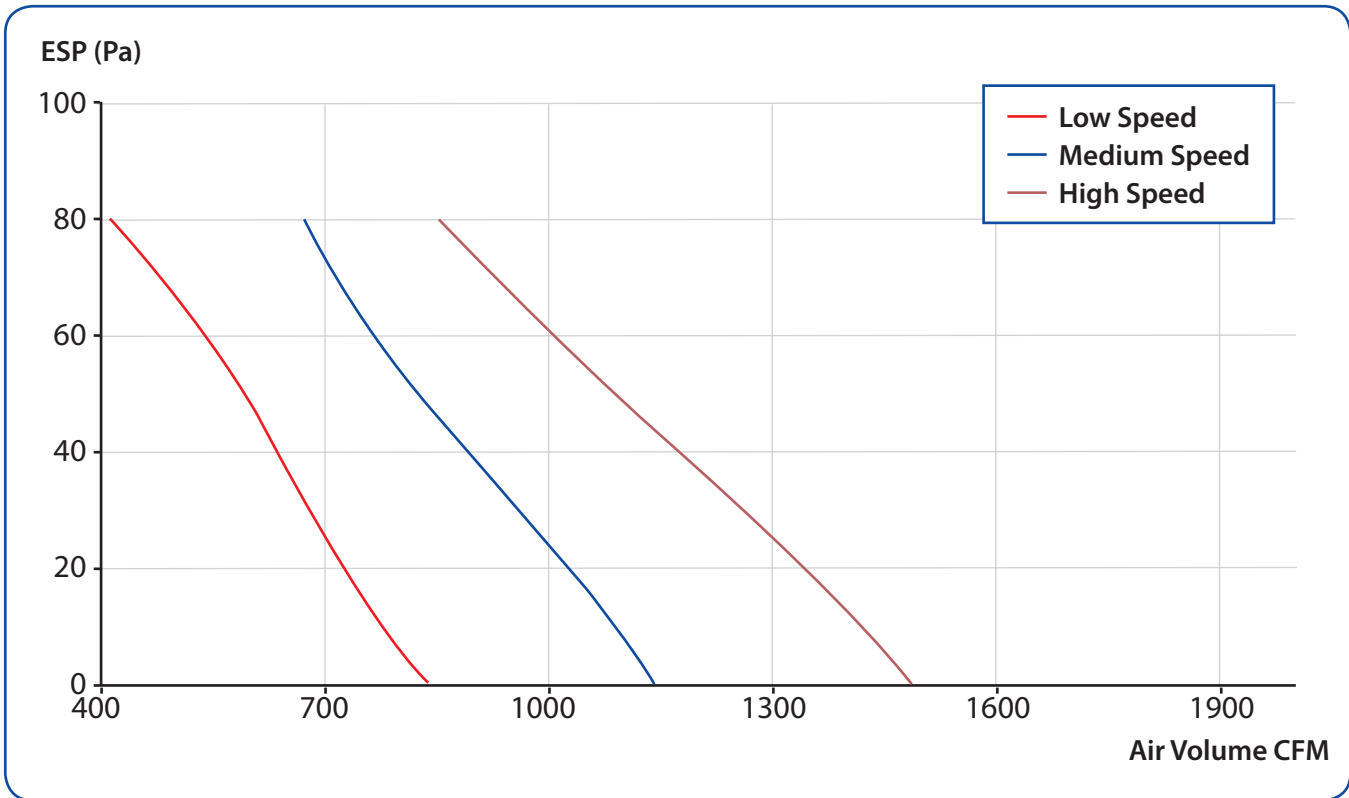
Air Vol. vs ESP for Model No. FWLCD3-60



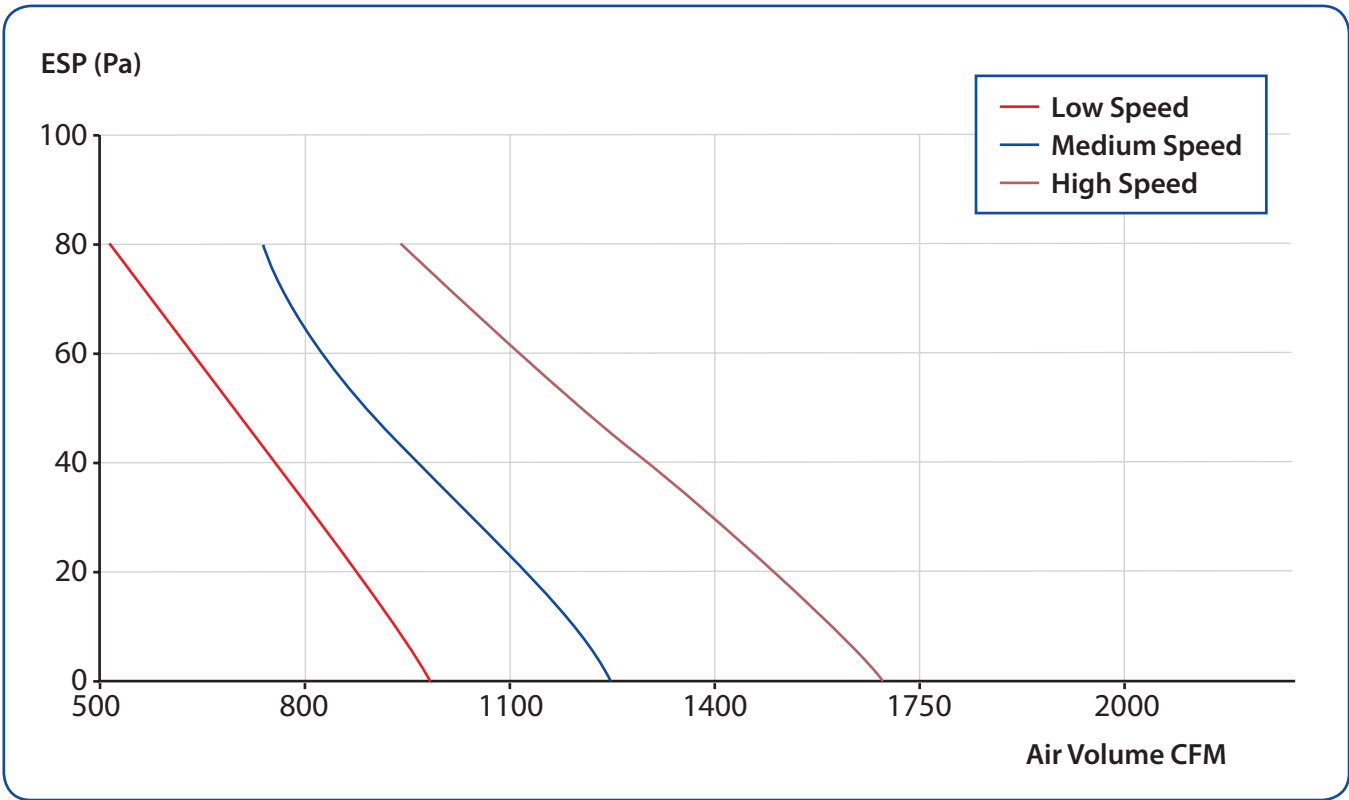
Air Vol. vs ESP for Model No. FWLCD3-80



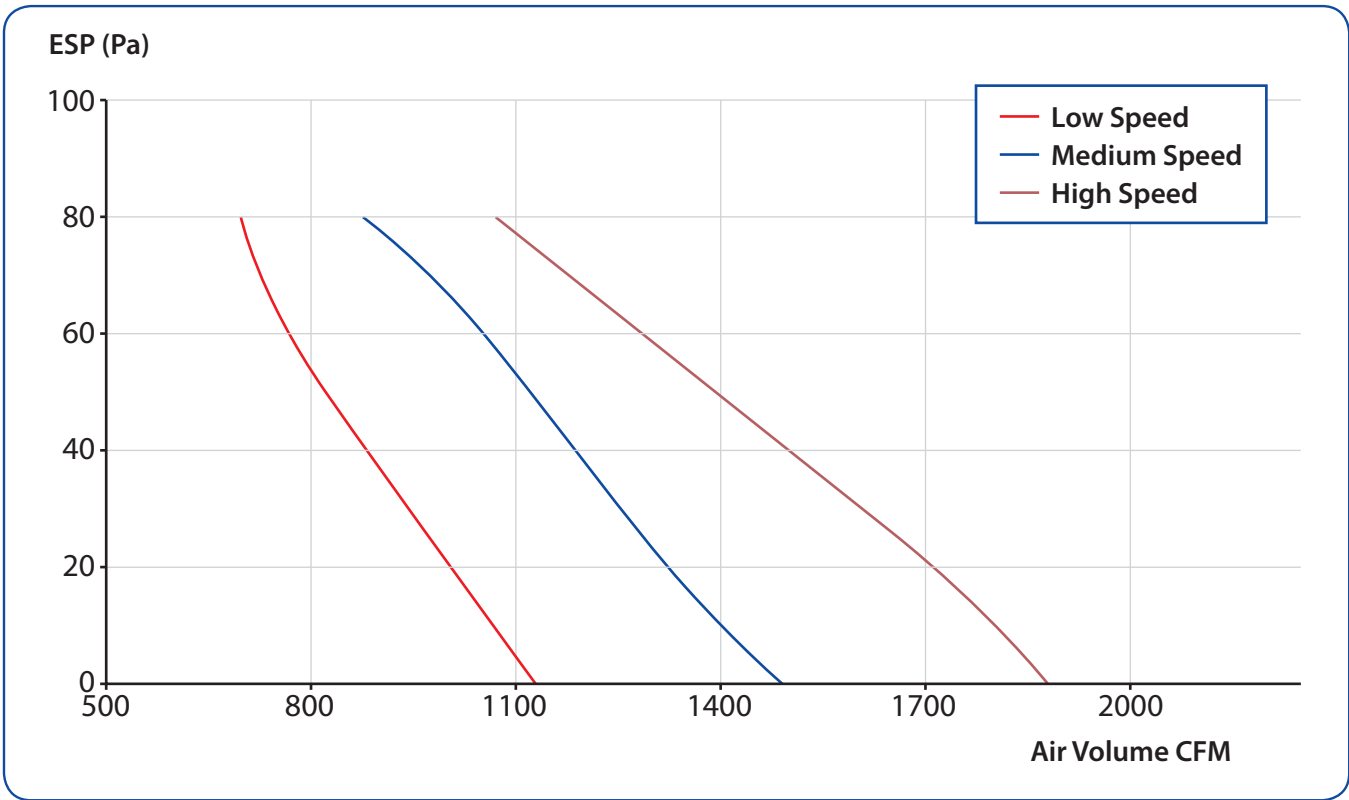
Air Vol. vs ESP for Model No. FWLCD3-100



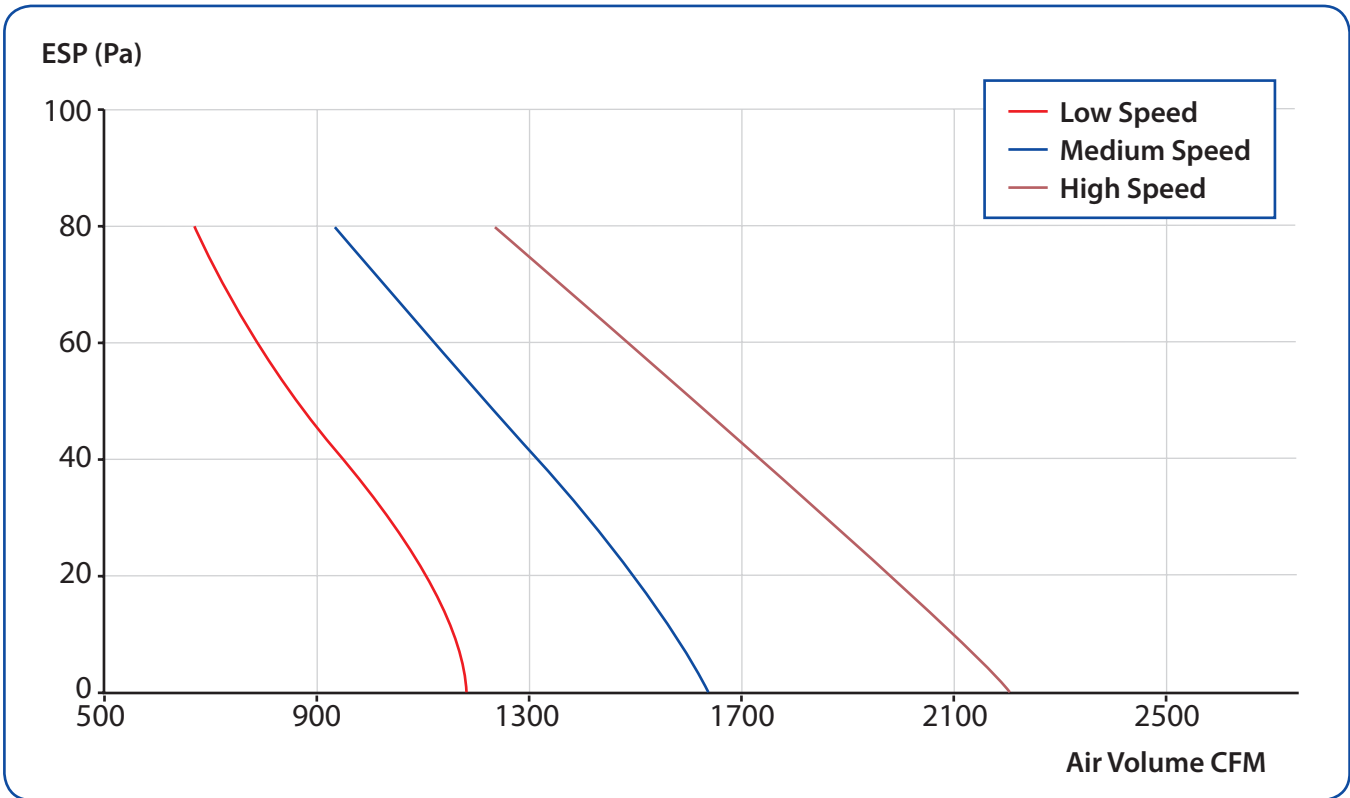
Air Vol. vs ESP for Model No. FWLCD3-120



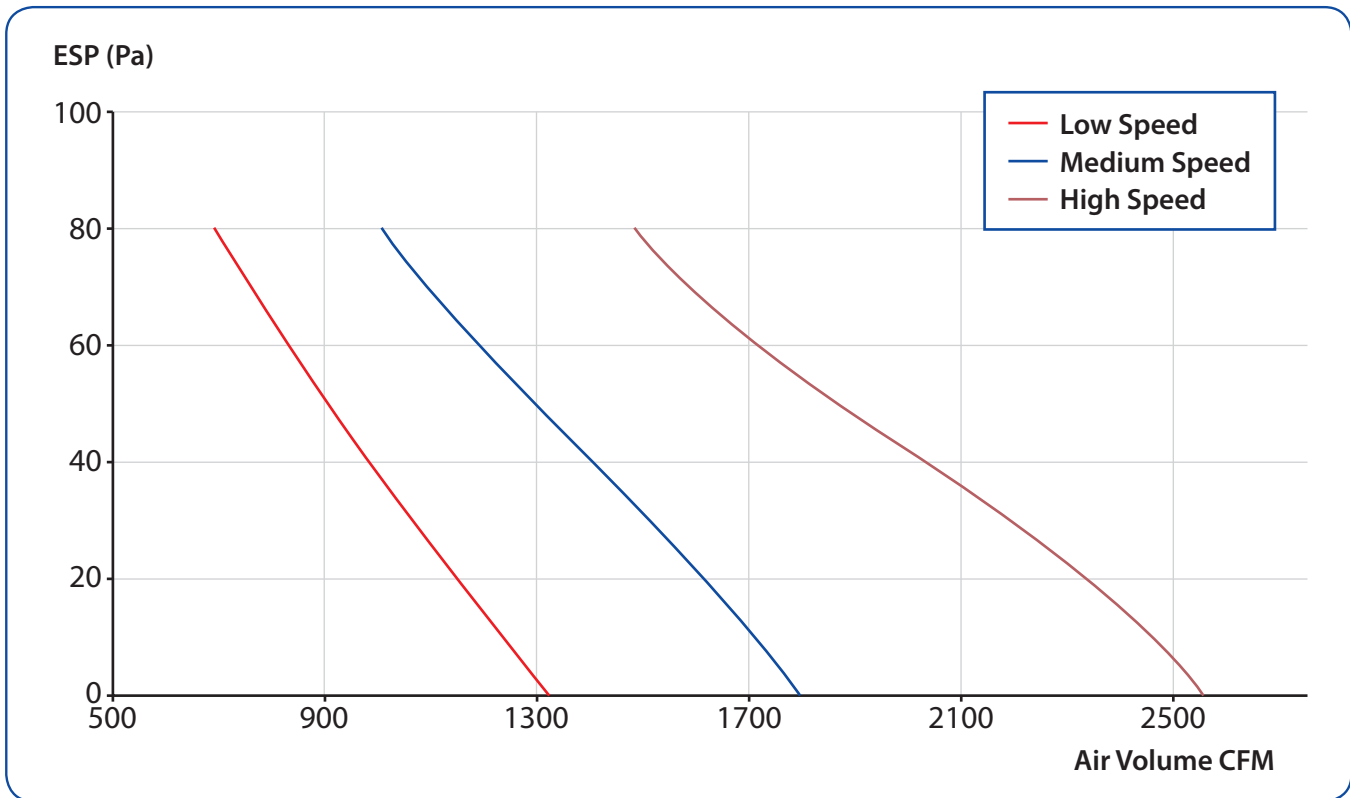
Air Vol. vs ESP for Model No. FWLCD3-140



Air Vol. vs ESP for Model No. FWLCD3-160

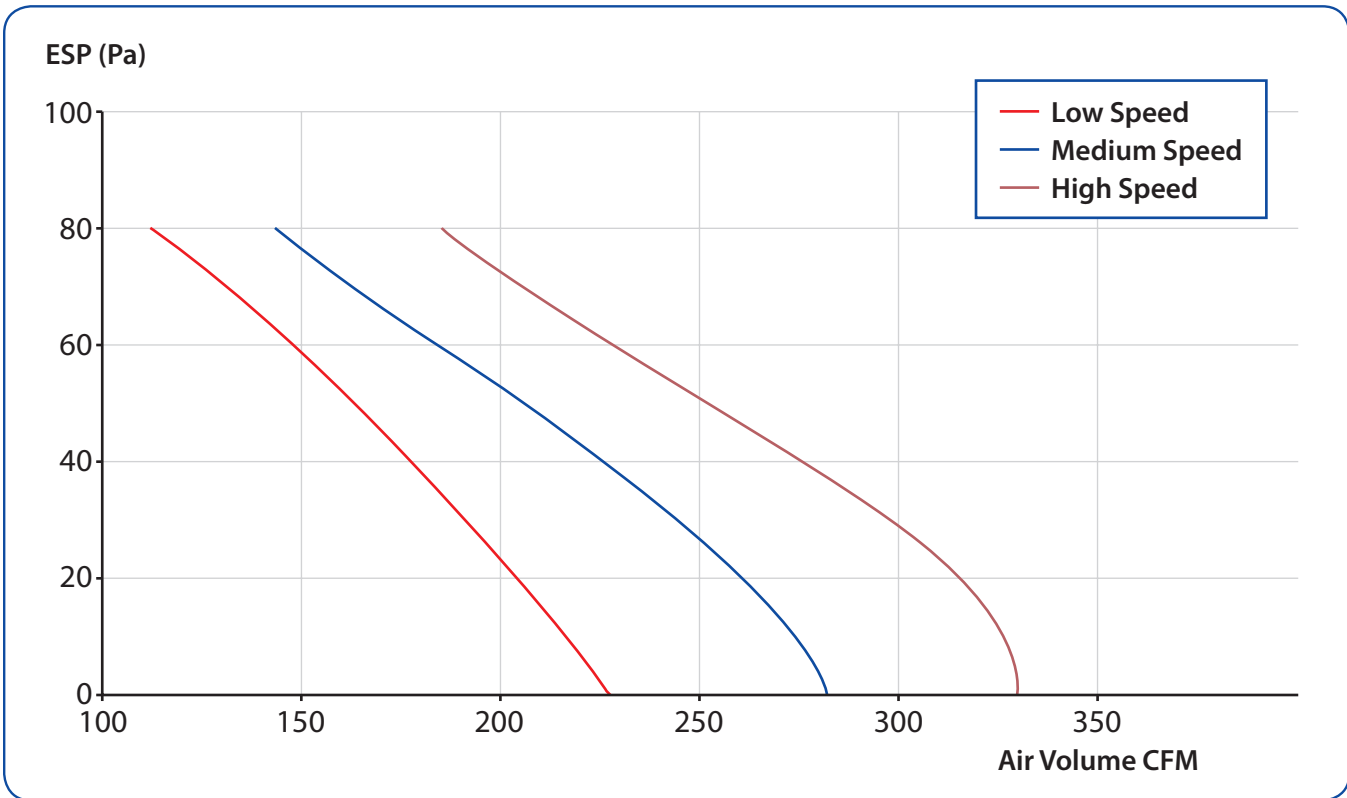


Air Vol. vs ESP for Model No. FWLCD3-180

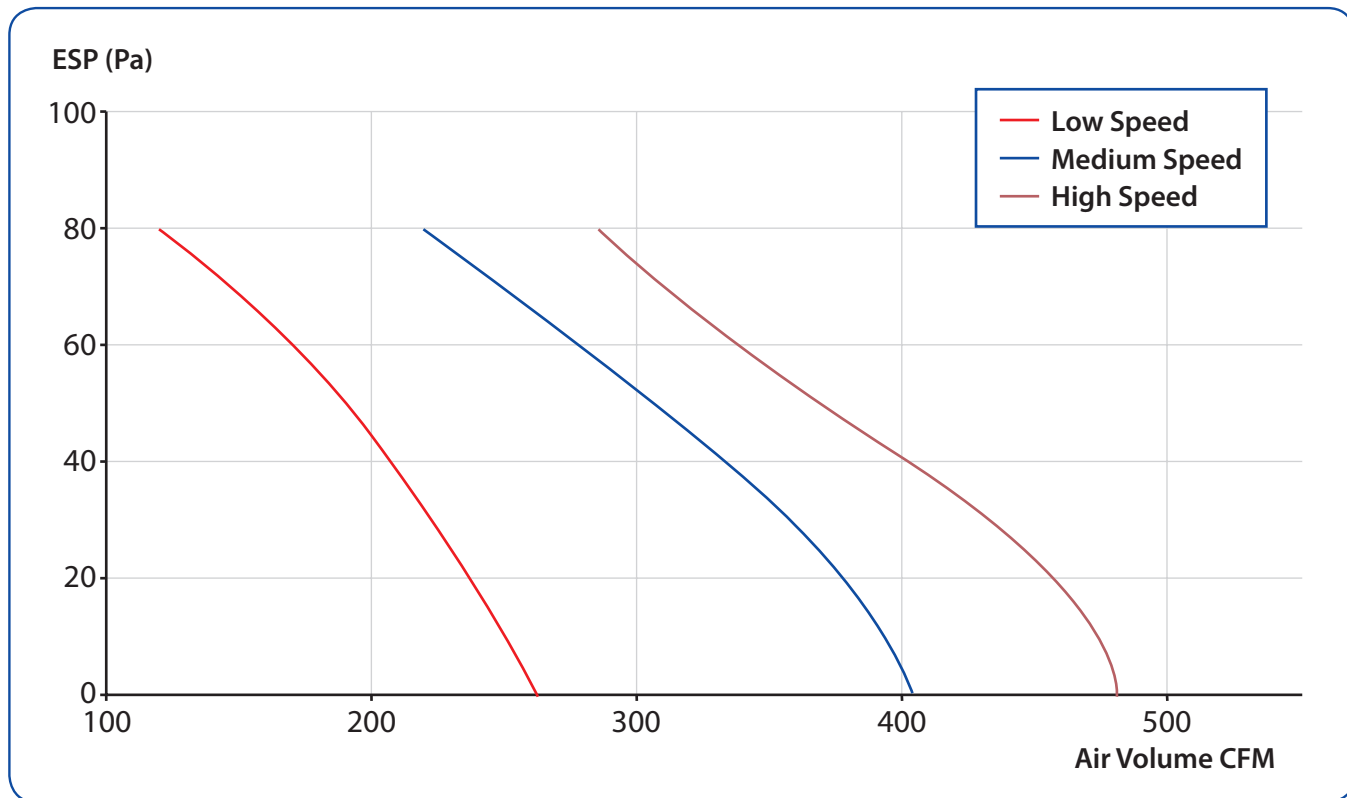


Air Vol. vs ESP for Model No. FWLCD3-200

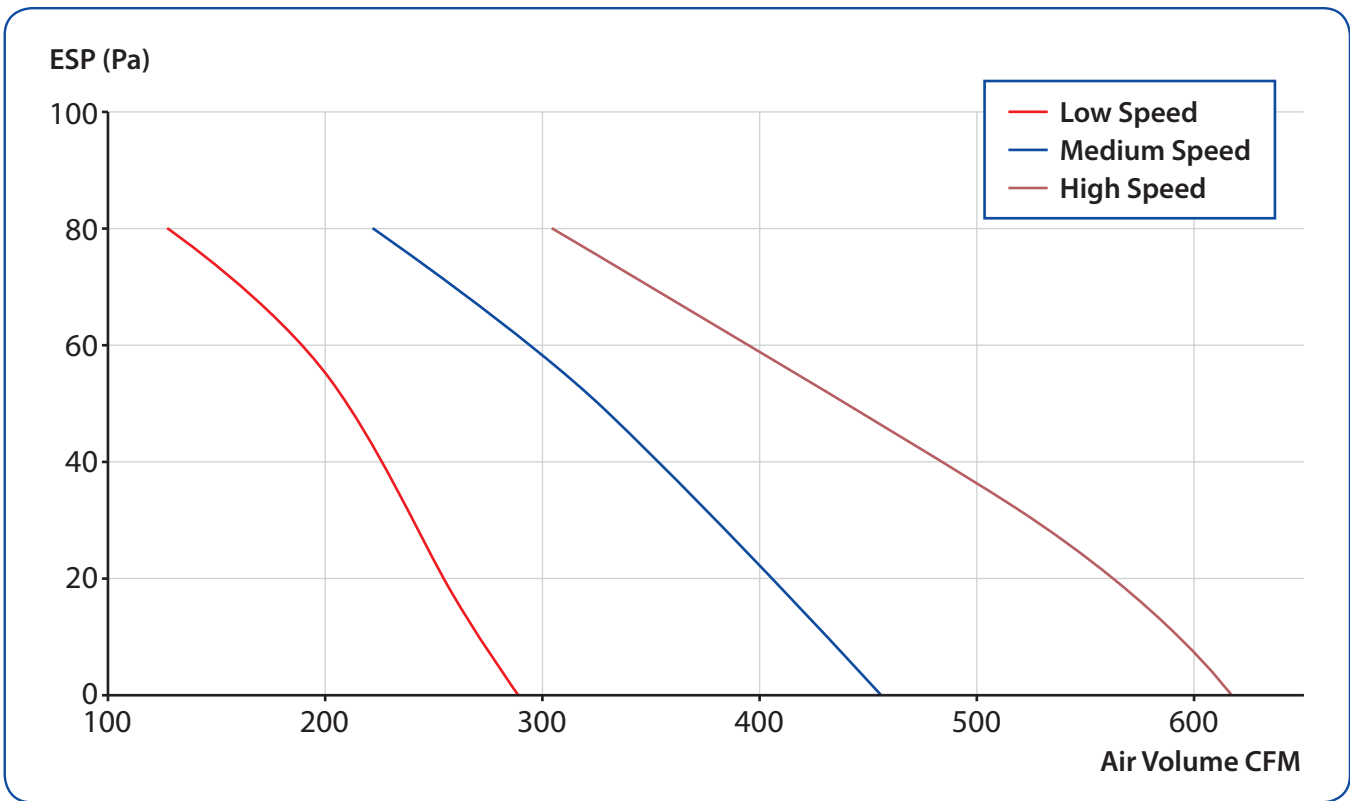
MODEL - FWLCD4



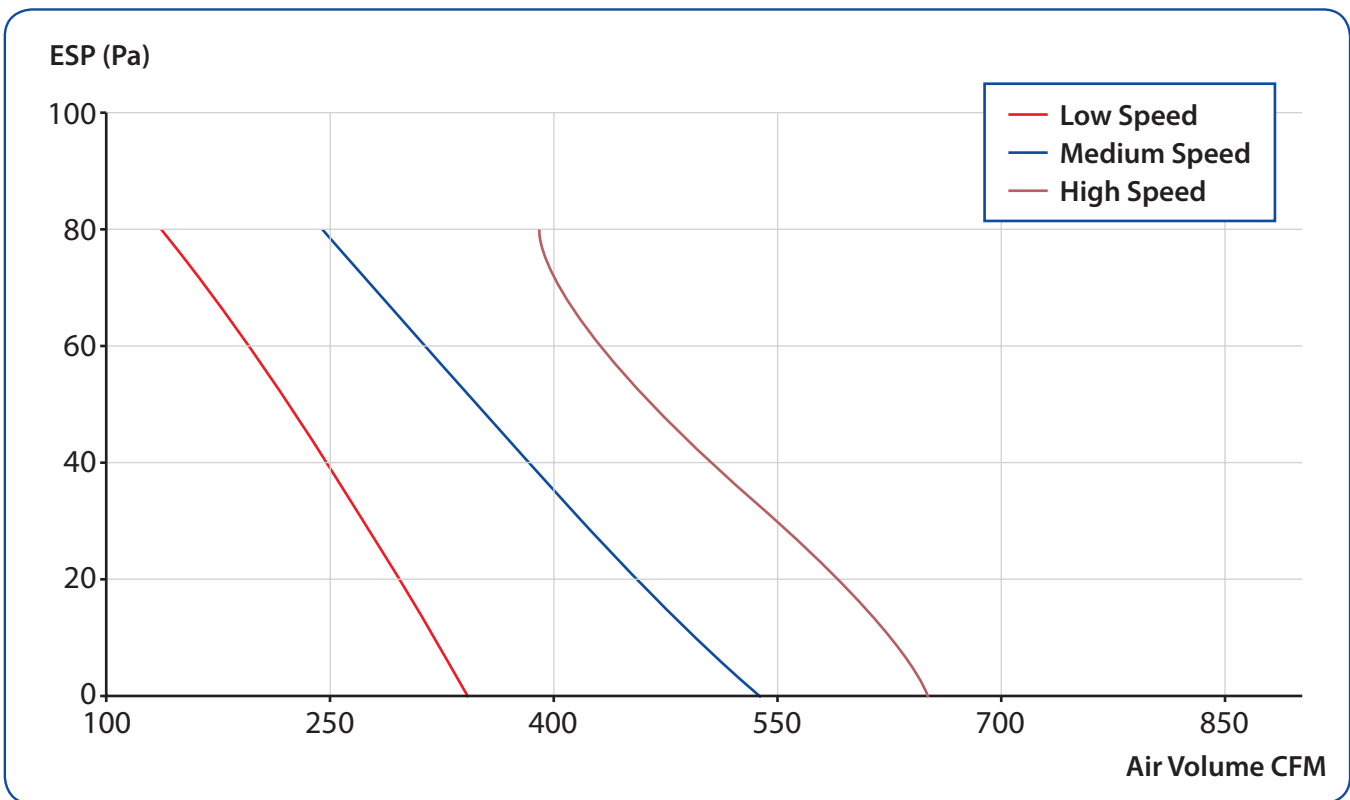
Air Vol. vs ESP for Model No. FWLCD4-20



Air Vol. vs ESP for Model No. FWLCD4-30

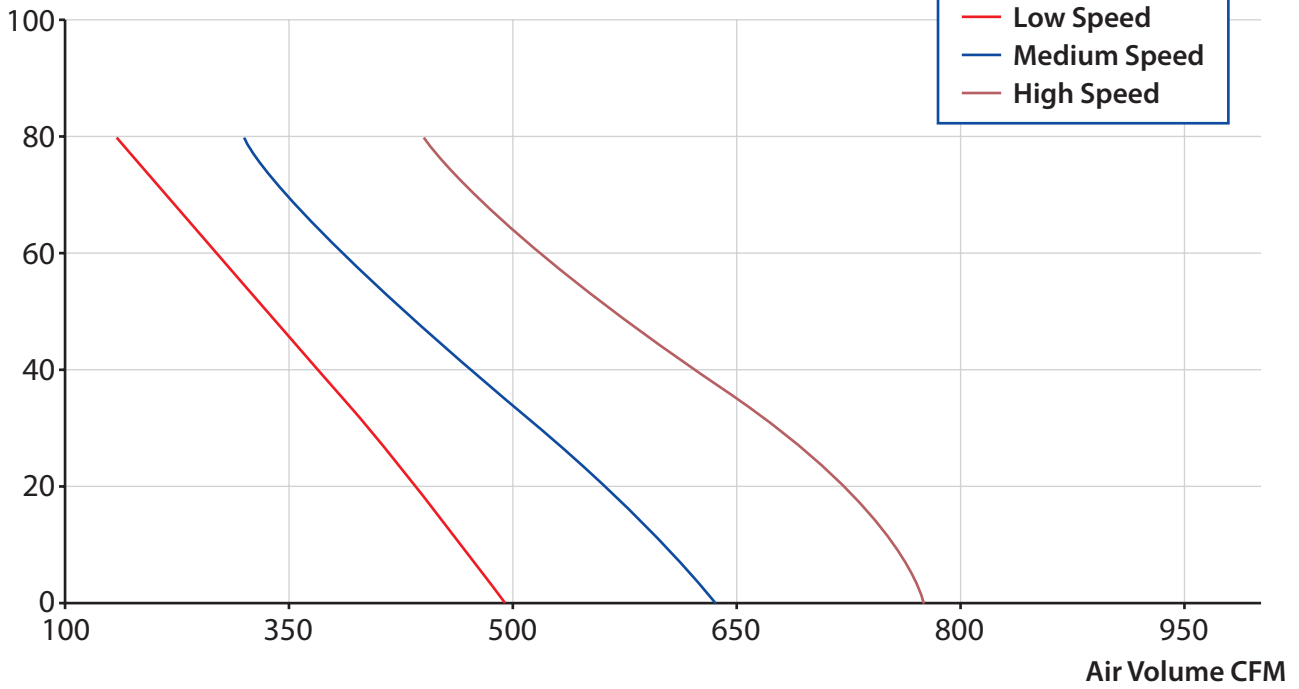


Air Vol. vs ESP for Model No. FWLCD4-40



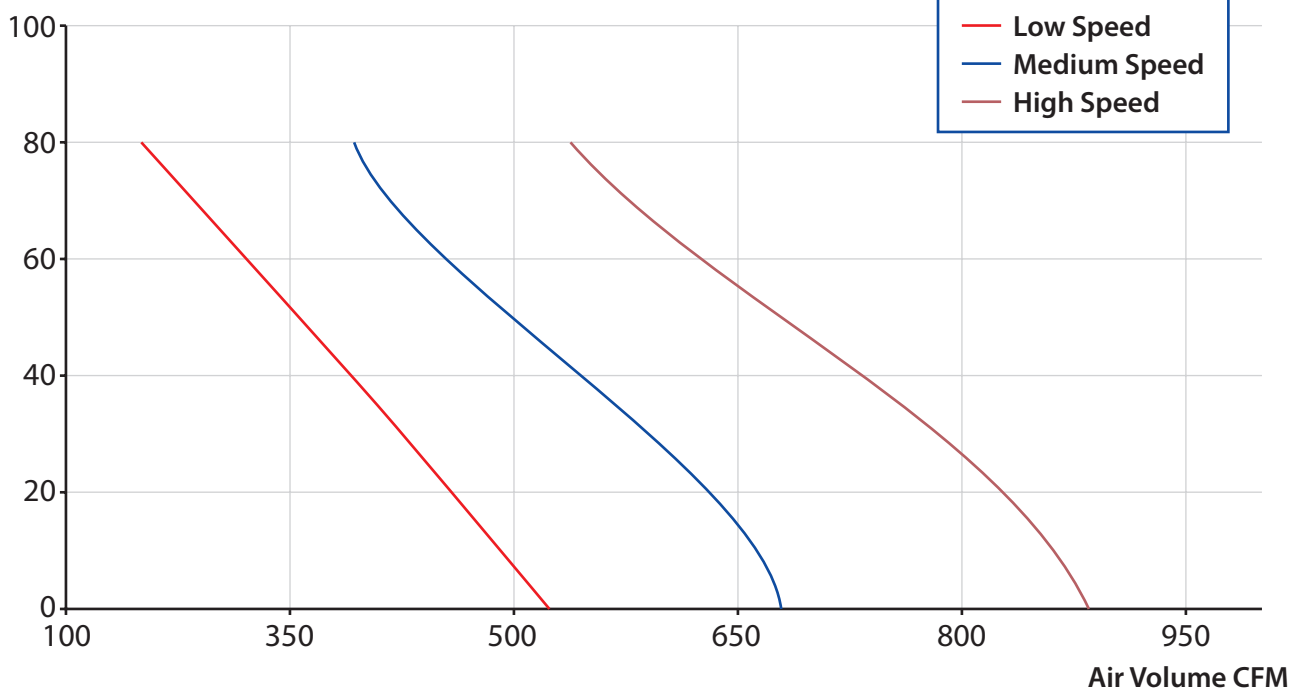
Air Vol. vs ESP for Model No. FWLCD4-50

ESP (Pa)

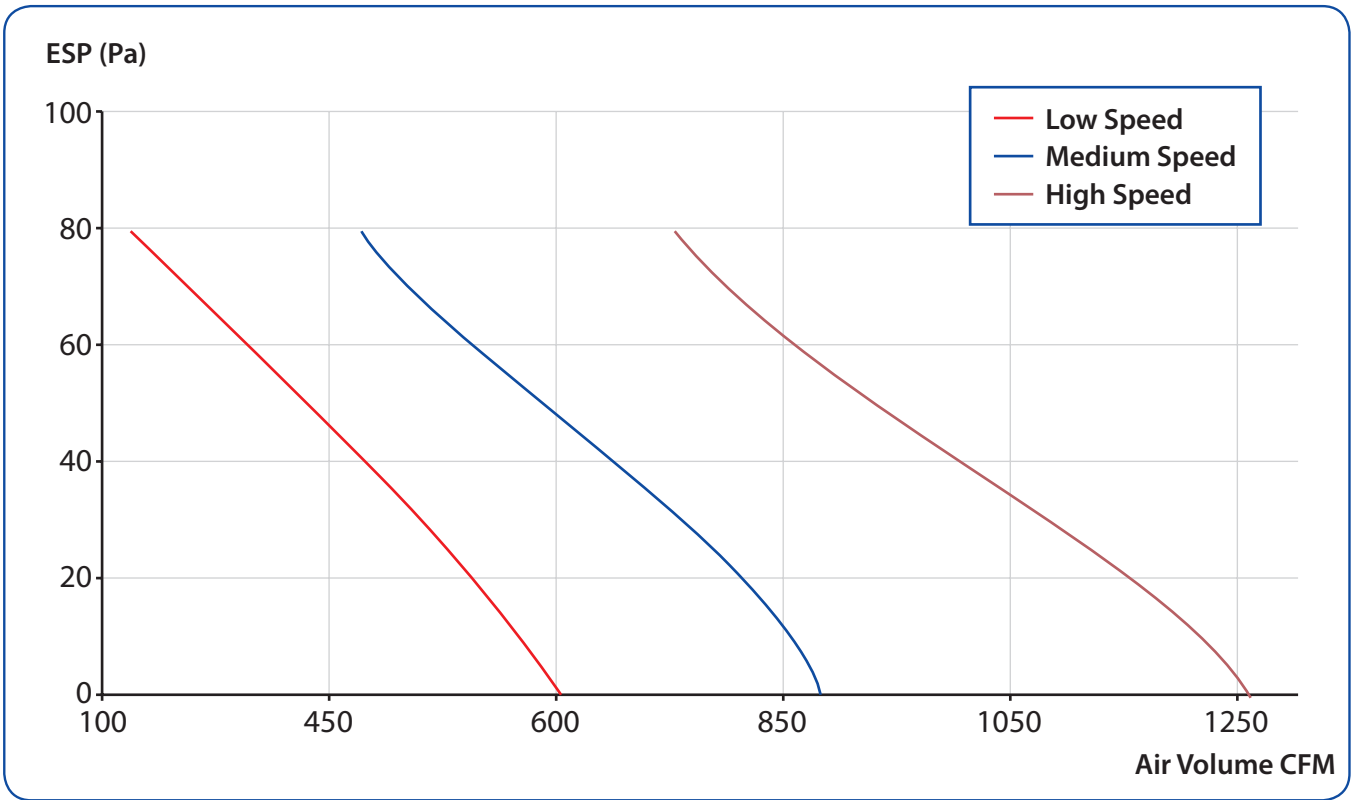


Air Vol. vs ESP for Model No. FWLCD4-60

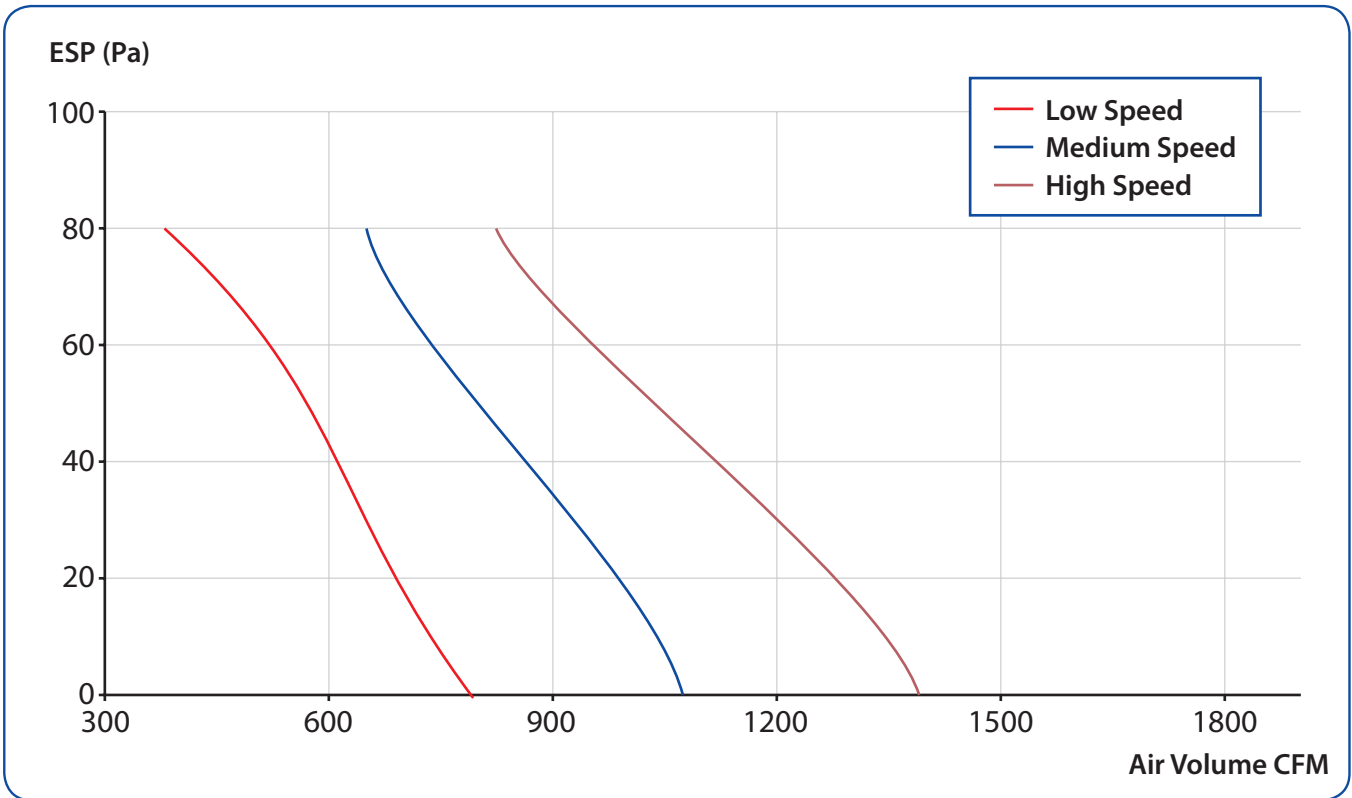
ESP (Pa)



Air Vol. vs ESP for Model No. FWLCD4-80

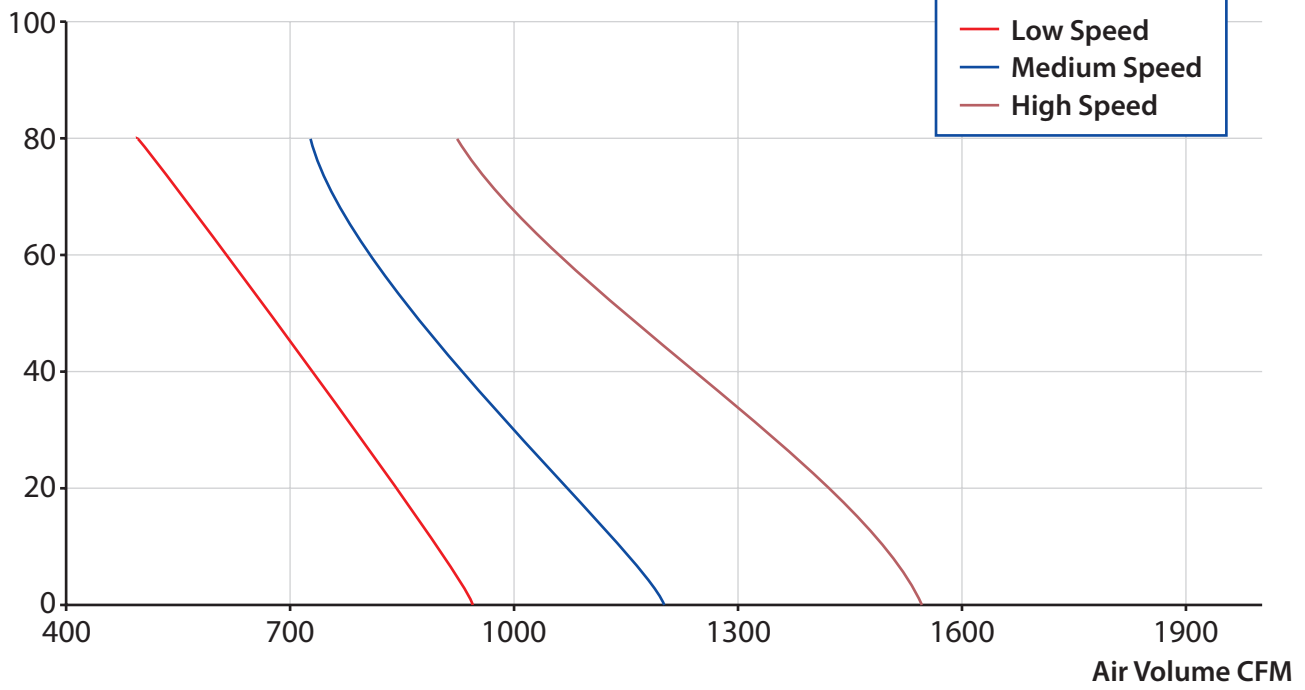


Air Vol. vs ESP for Model No. FWLCD4-100



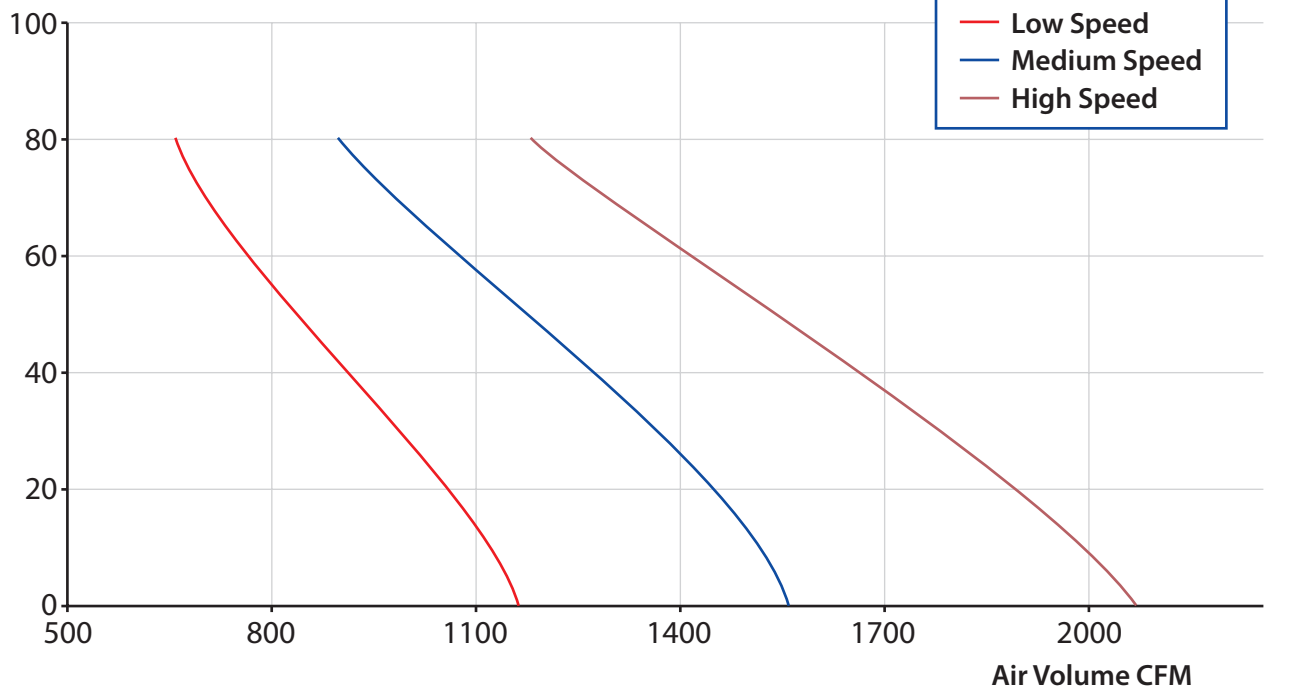
Air Vol. vs ESP for Model No. FWLCD4-120

ESP (Pa)

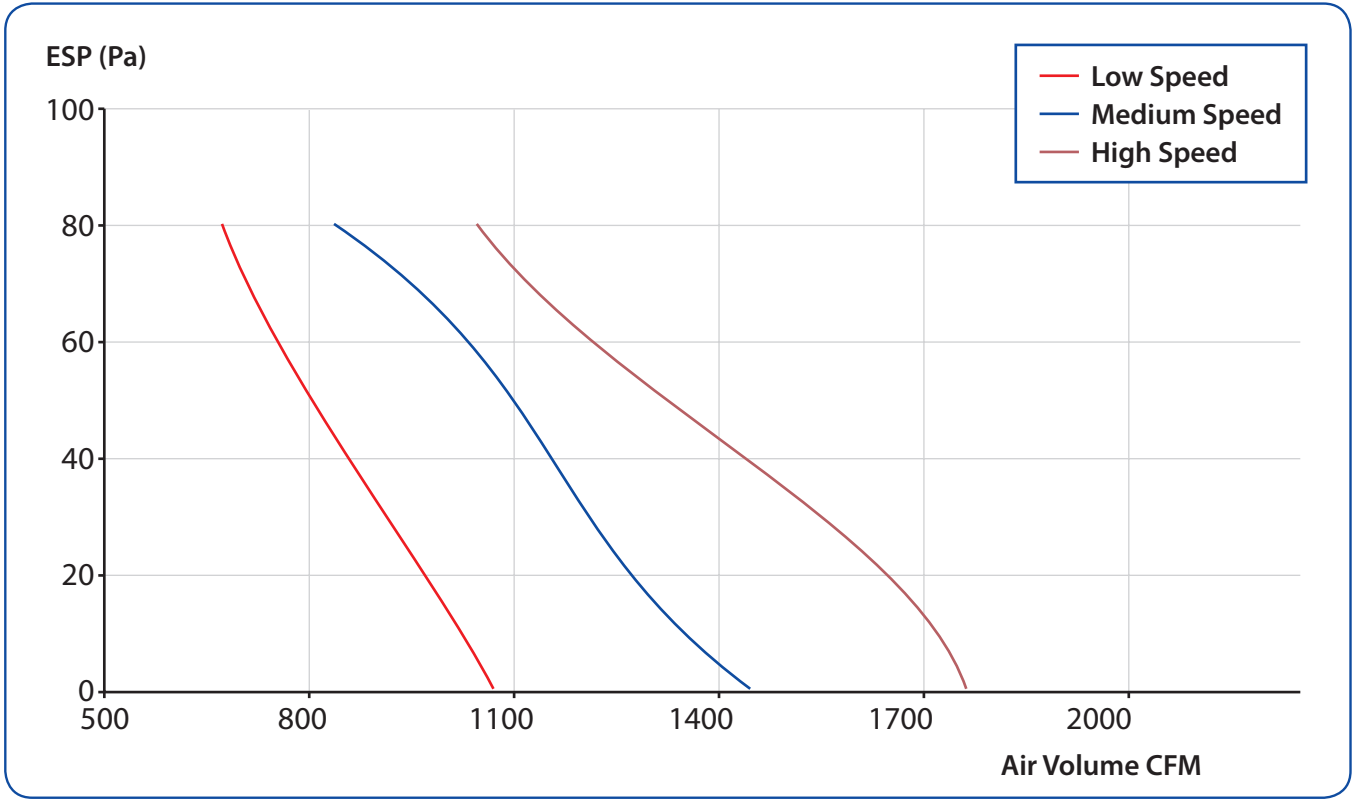


Air Vol. vs ESP for Model No. FWLCD4-140

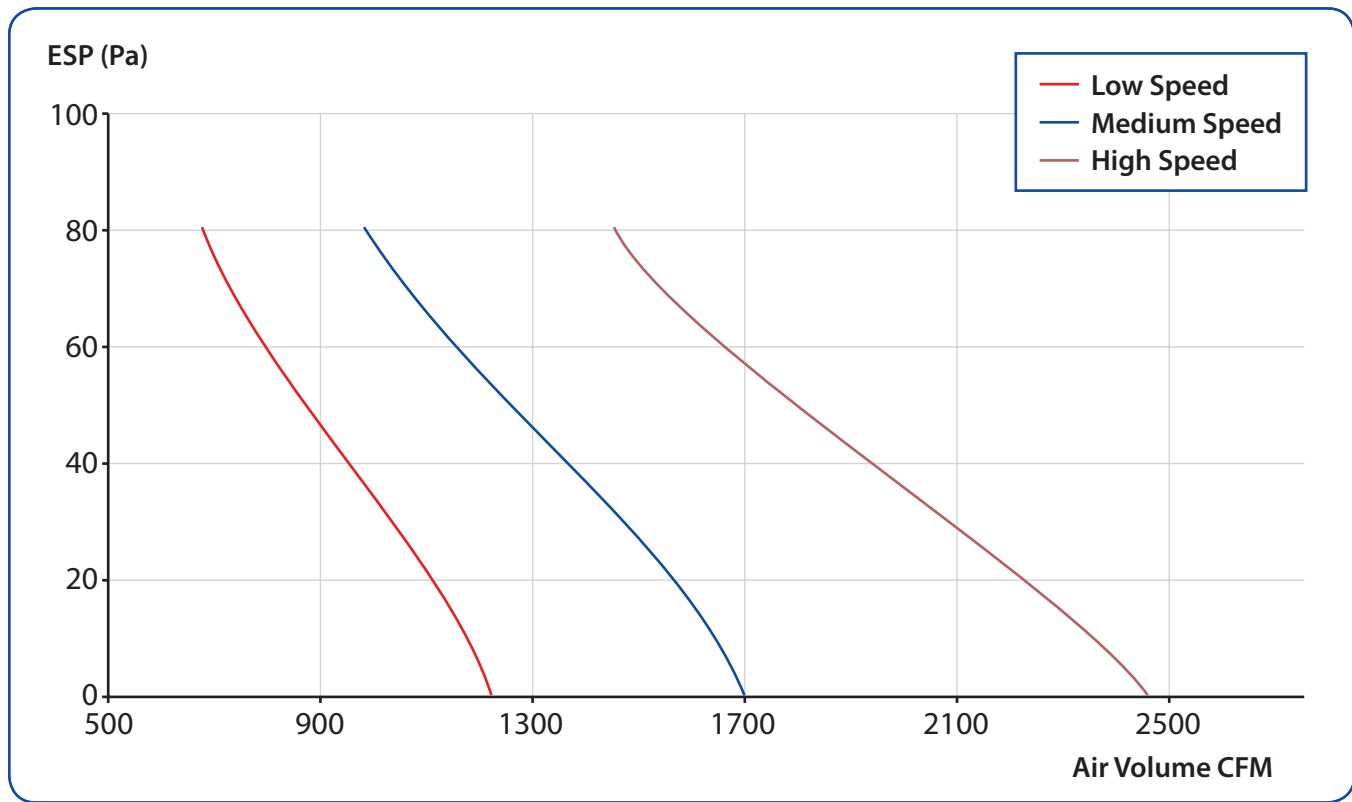
ESP (Pa)



Air Vol. vs ESP for Model No. FWLCD4-180

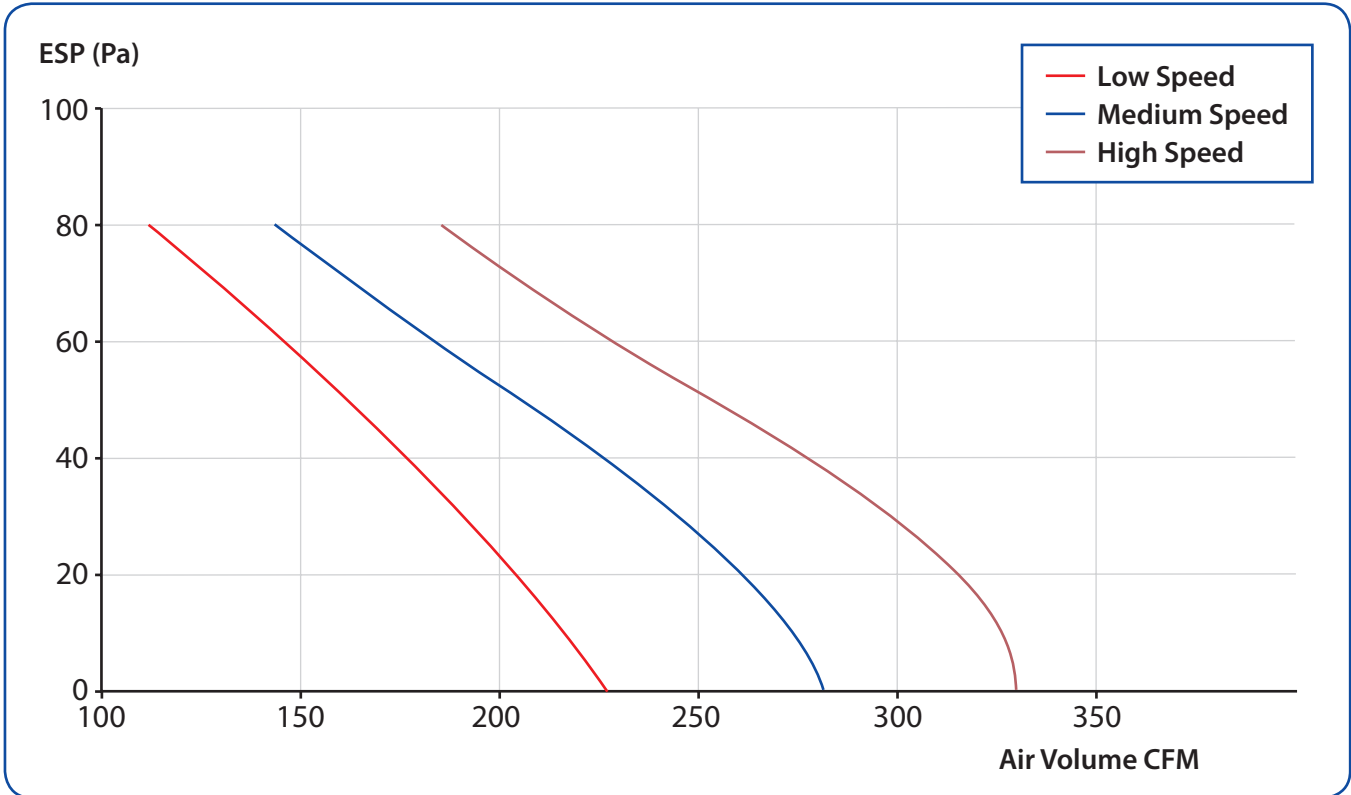


Air Vol. vs ESP for Model No. FWLCD4-160

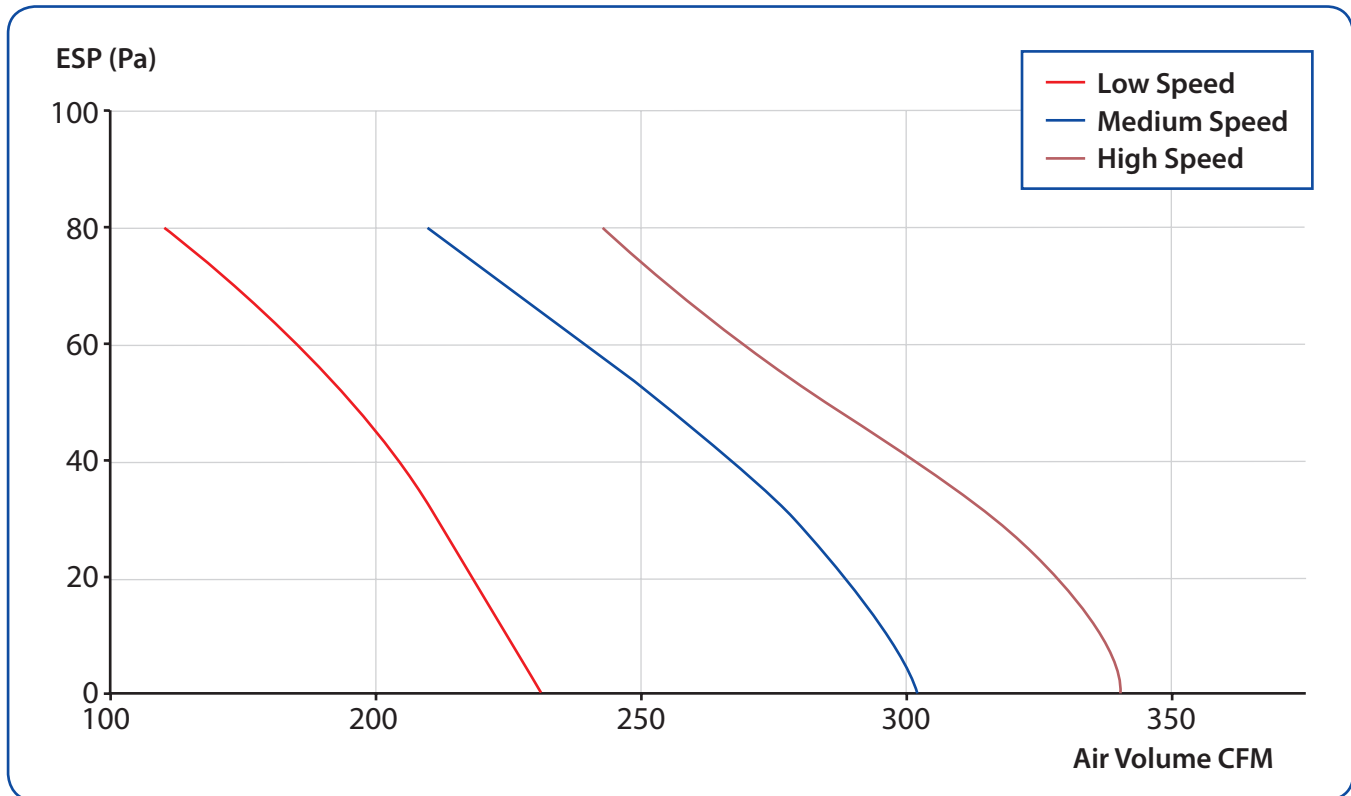


Air Vol. vs ESP for Model No. FWLCD4-200

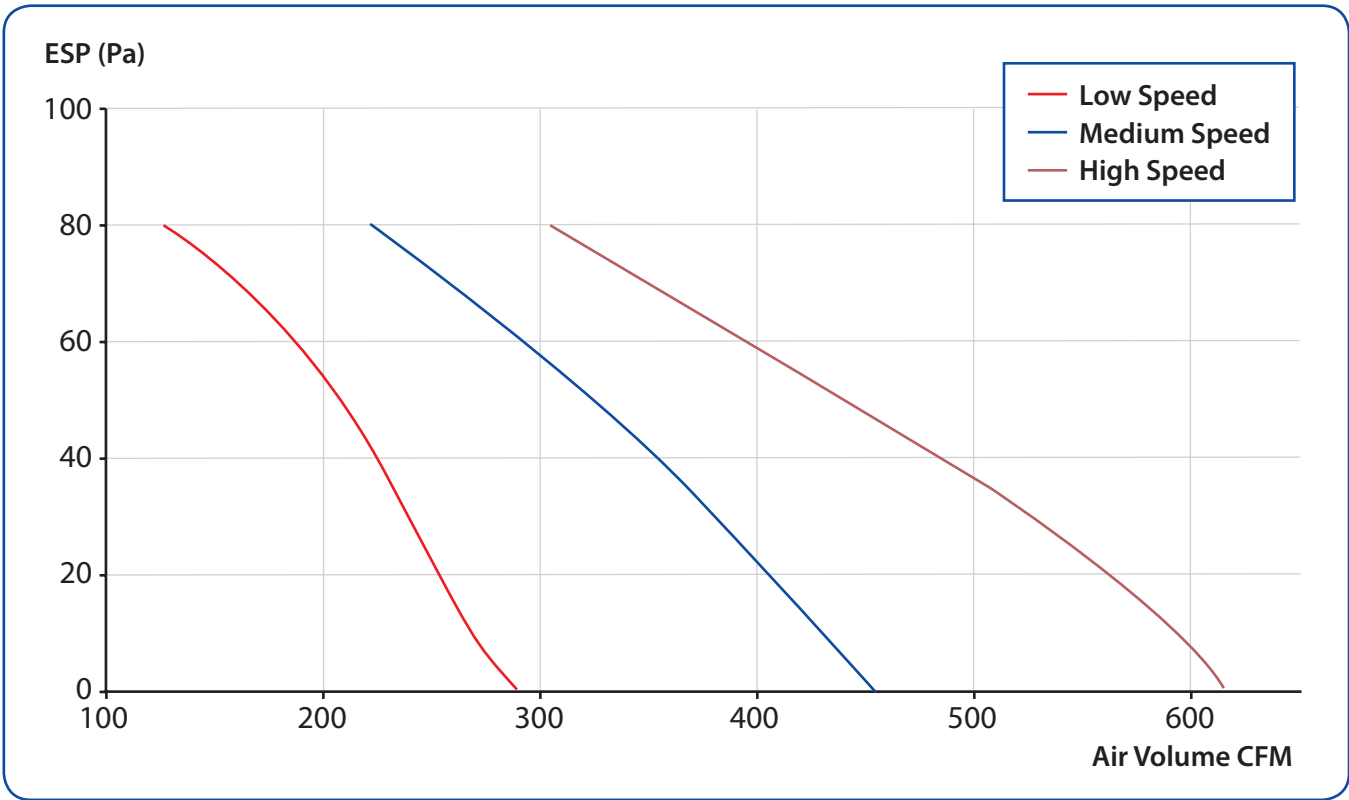
MODEL - FWLCD31



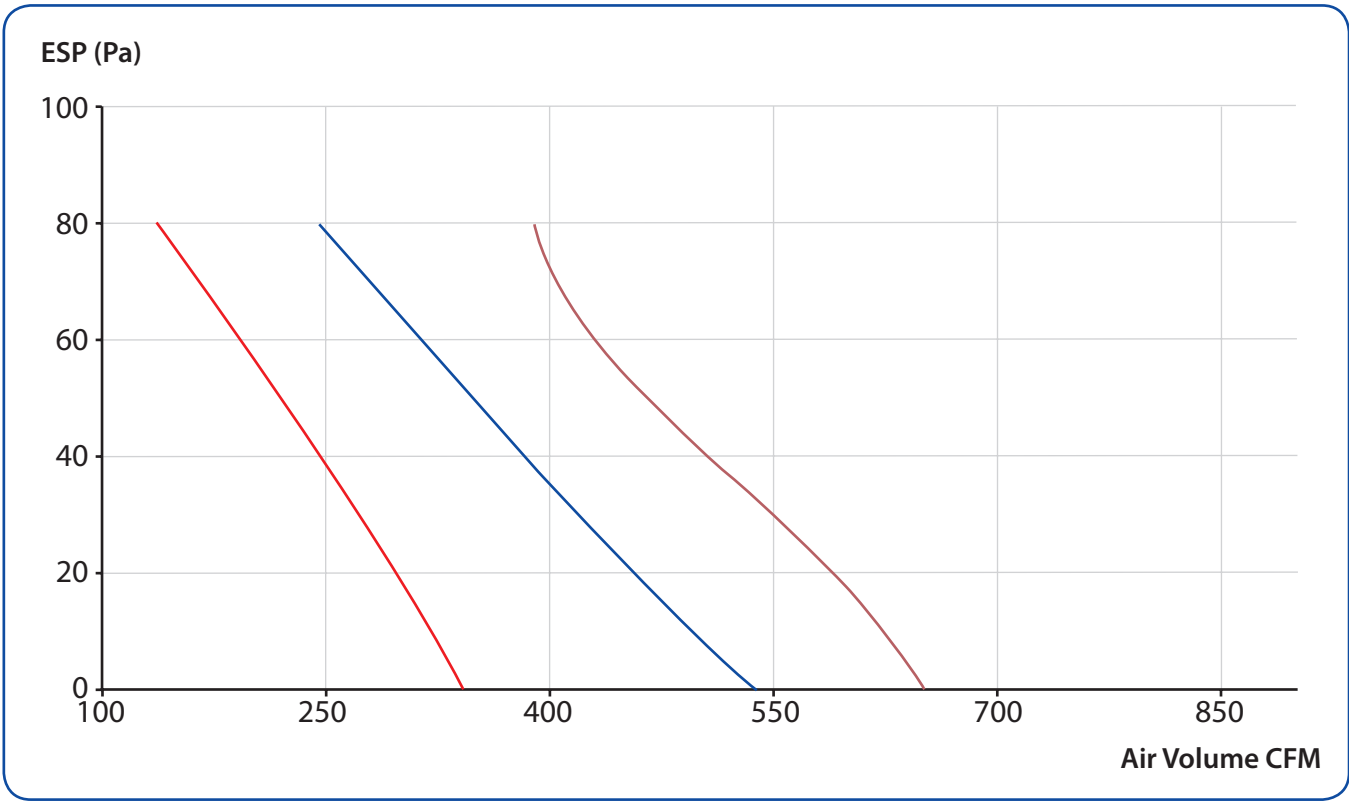
Air Vol. vs ESP for Model No. FWLCD31-20



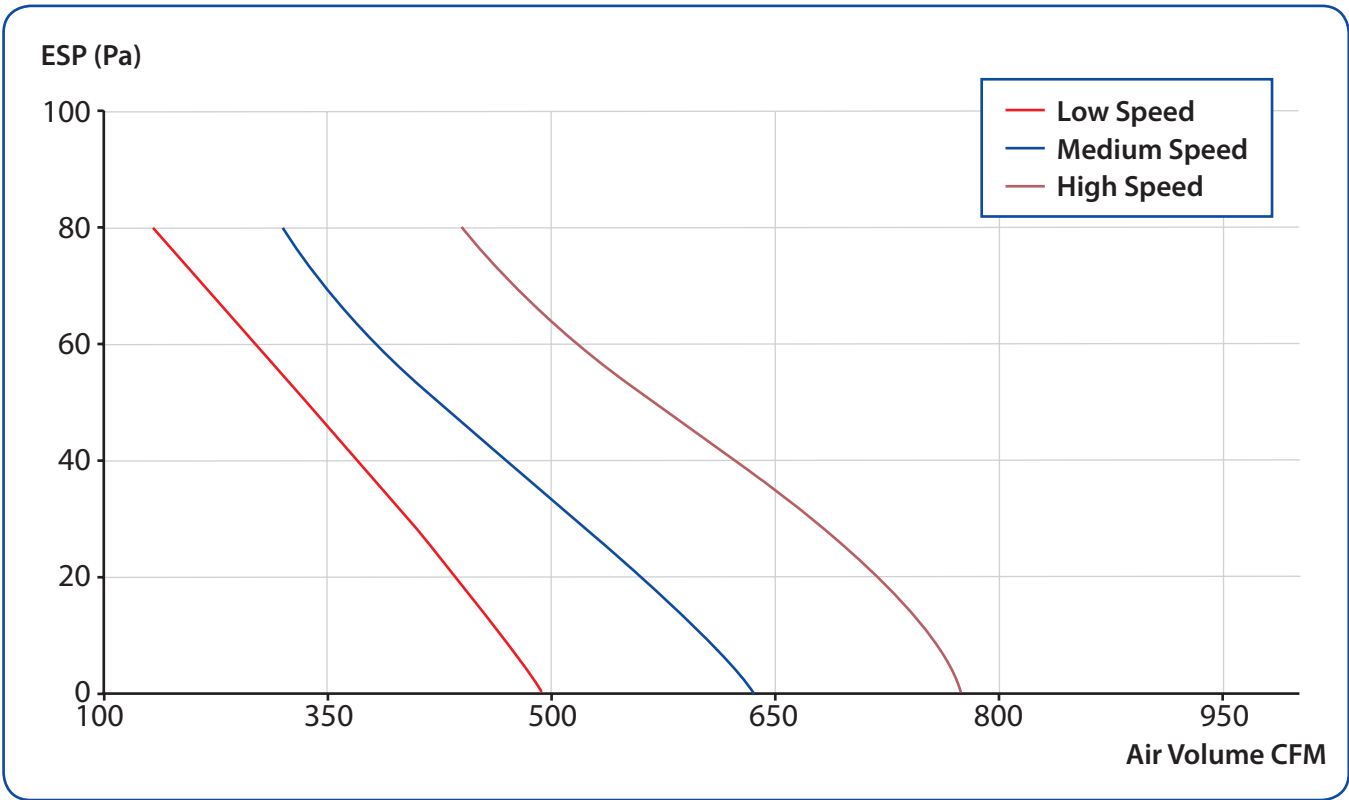
Air Vol. vs ESP for Model No. FWLCD31-30



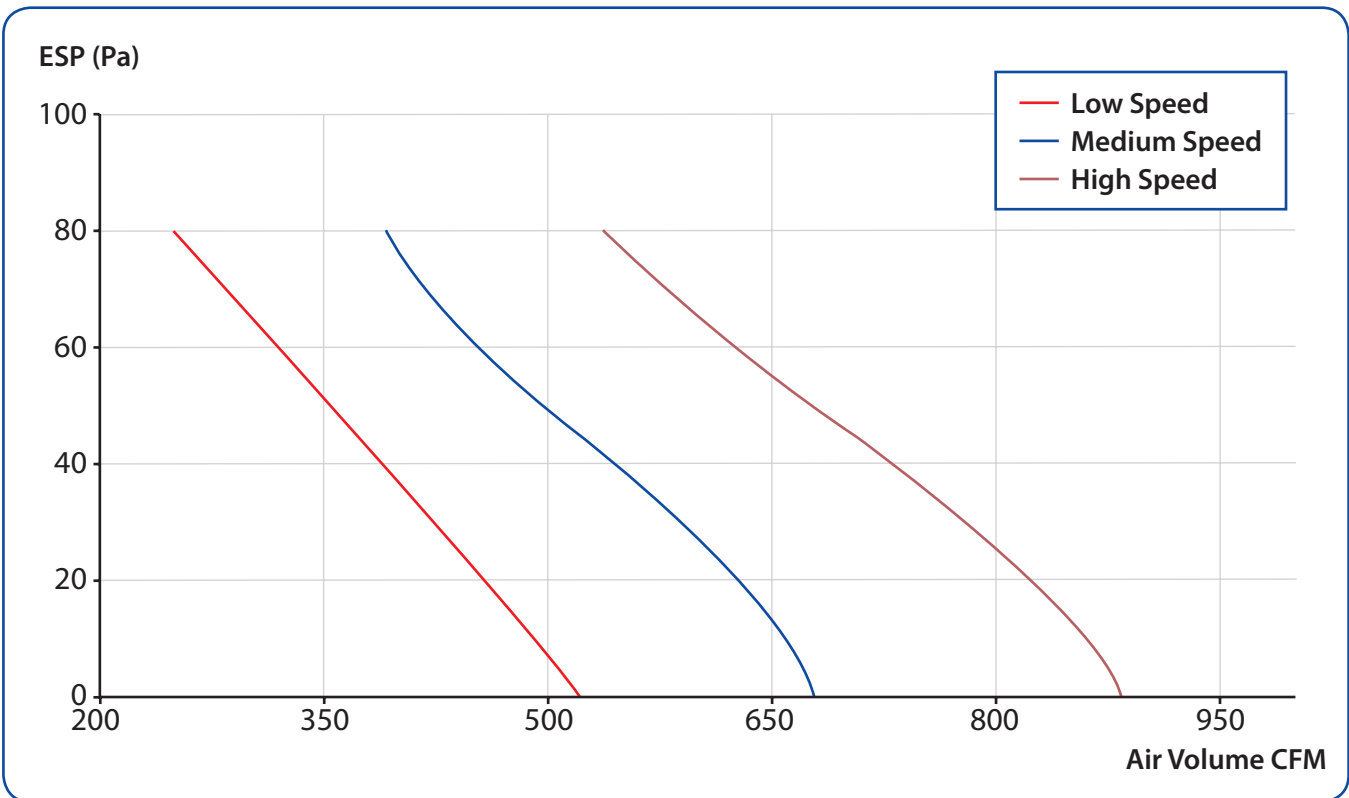
Air Vol. vs ESP for Model No. FWLCD31-40



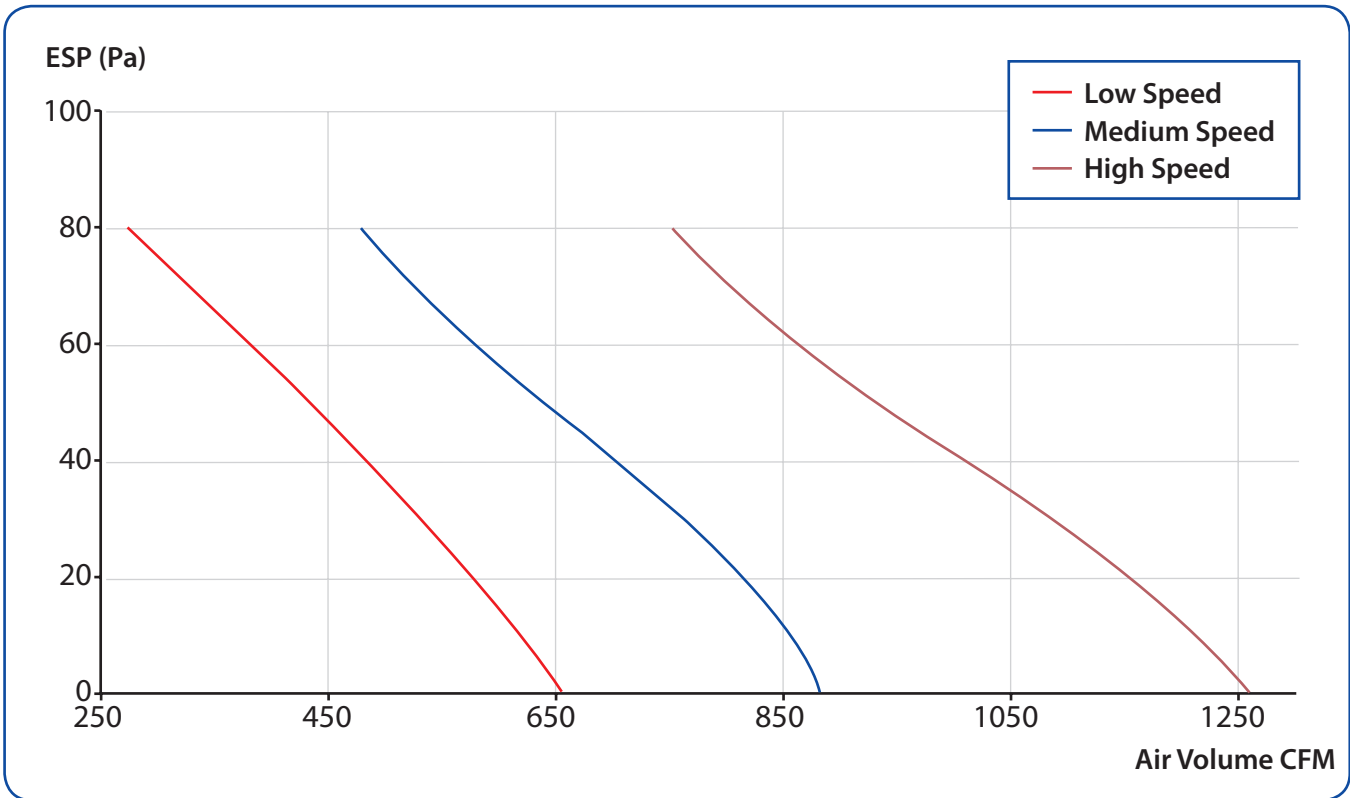
Air Vol. vs ESP for Model No. FWLCD31-50a



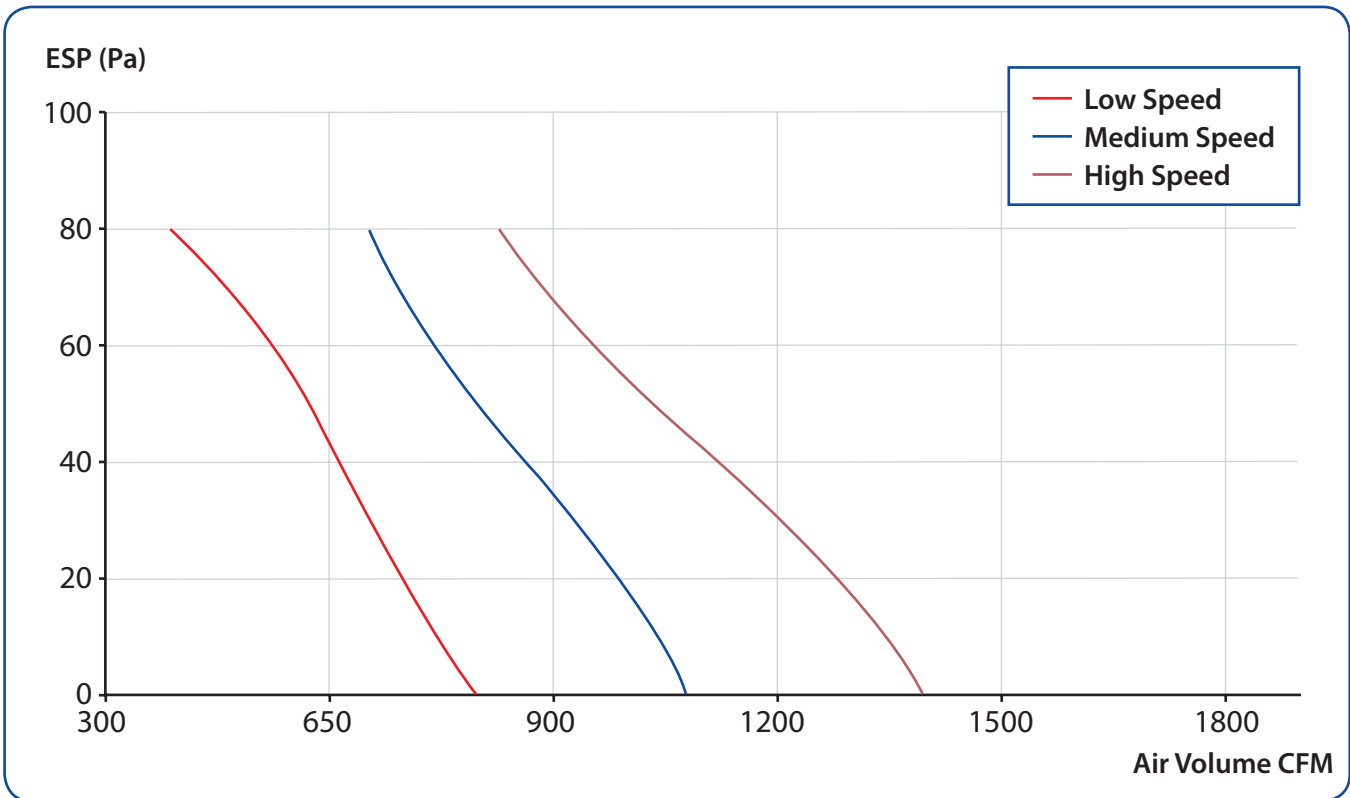
Air Vol. vs ESP for Model No. FWLCD31-60



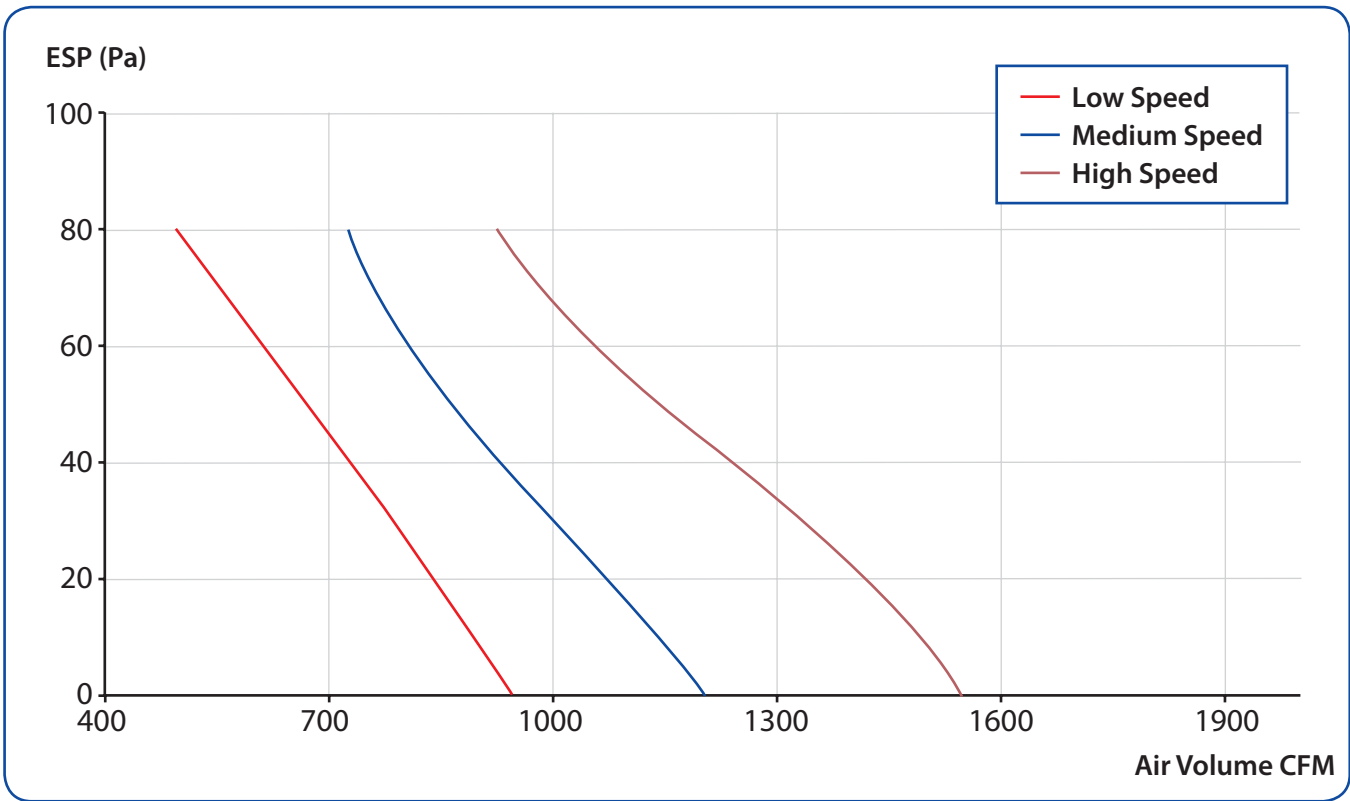
Air Vol. vs ESP for Model No. FWLCD31-80



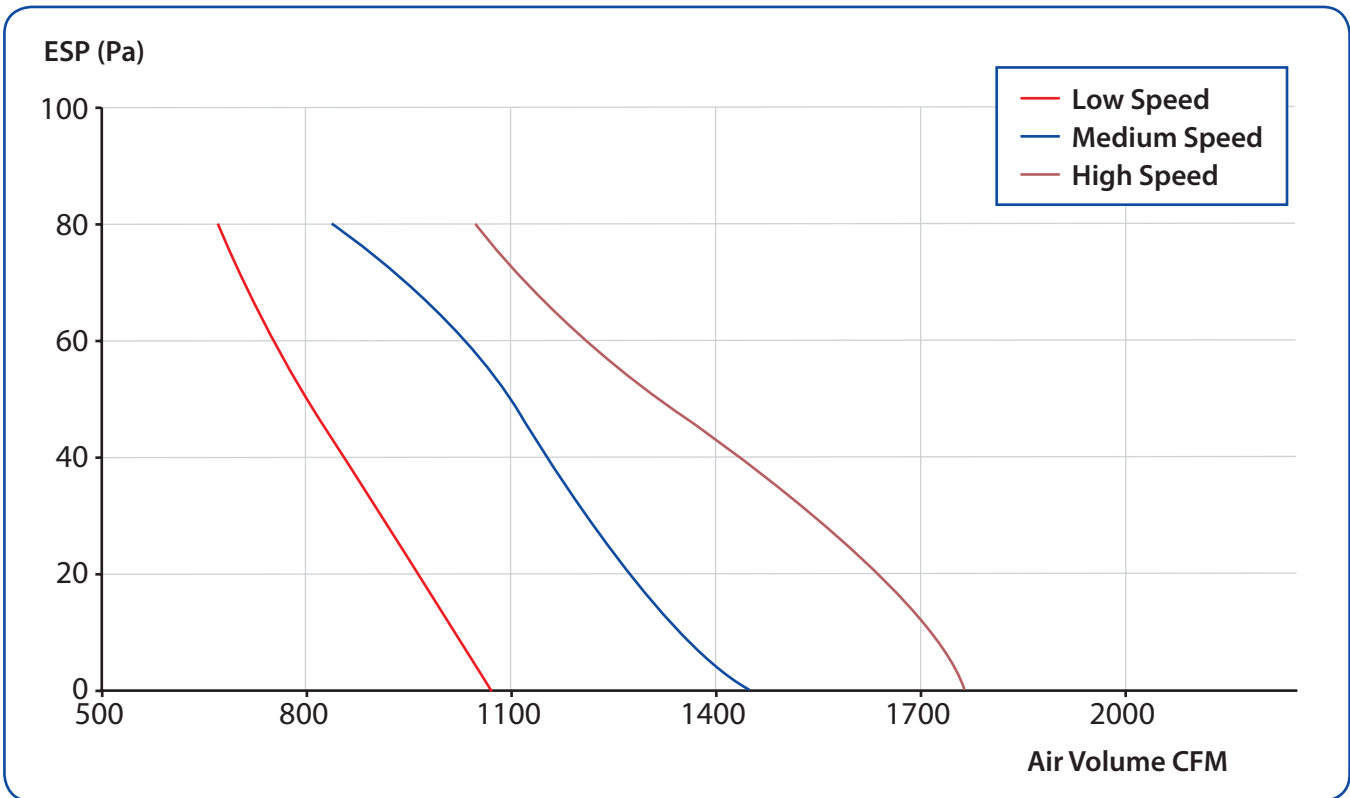
Air Vol. vs ESP for Model No. FWLCD31-100



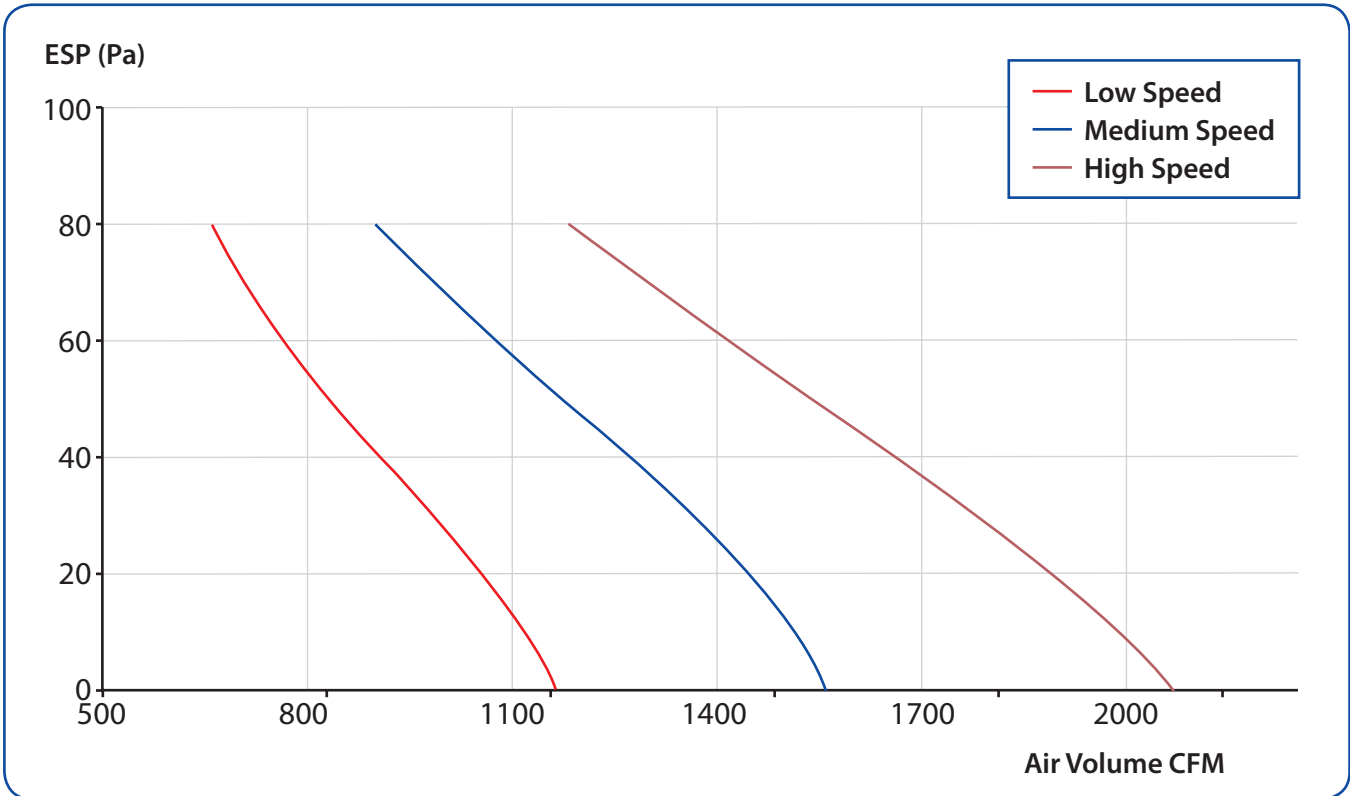
Air Vol. vs ESP for Model No. FWLCD31-120



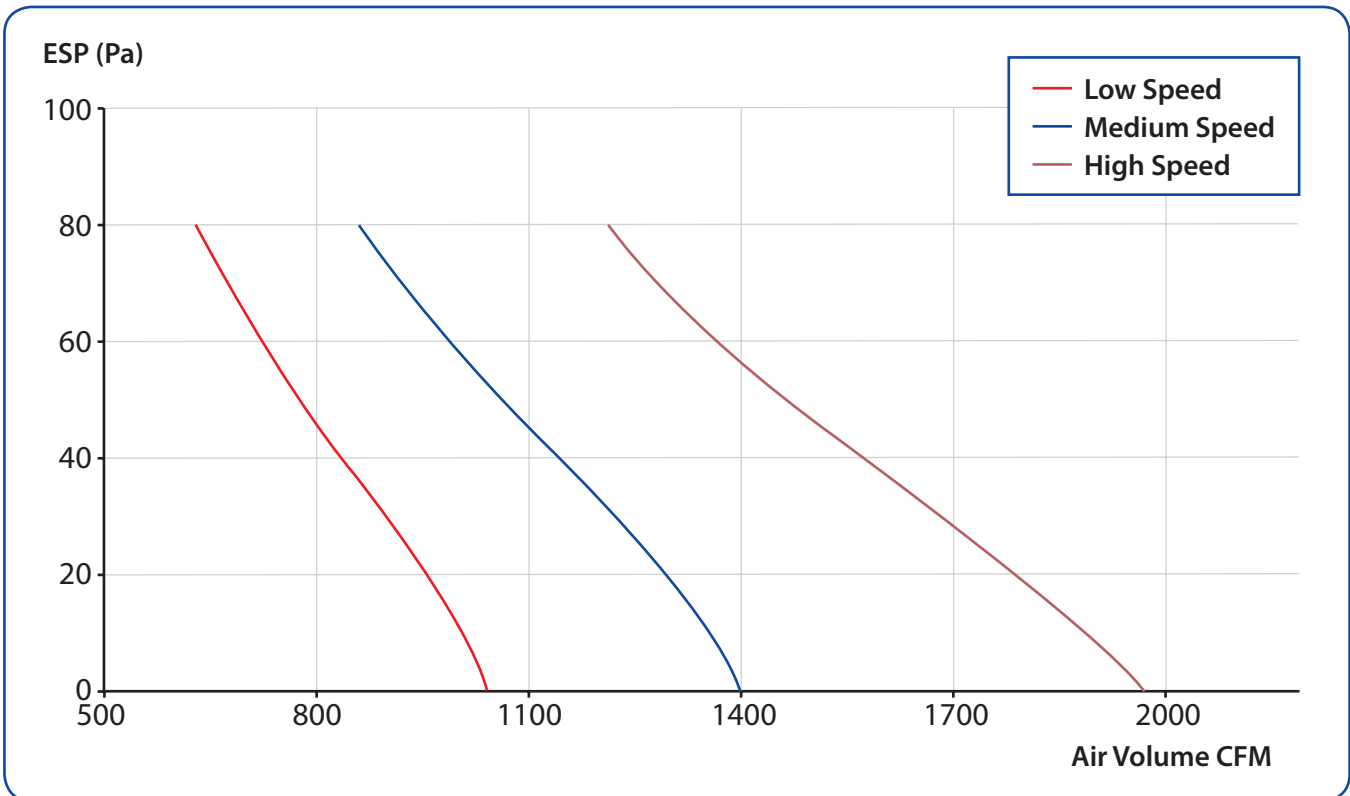
Air Vol. vs ESP for Model No. FWLCD31-140



Air Vol. vs ESP for Model No. FWLCD31-160



Air Vol. vs ESP for Model No. FWLCD31-180



Air Vol. vs ESP for Model No. FWLCD31-200

General Data - FWHCD (Fan Coil Unit Water Cooled High Static Ceiling Ducted)

	Model No	FWHCD-80	FWHCD-100	FWHCD-120	FWHCD-140	FWHCD-180	FWHCD-200	FWHCD-240	FWHCD-300
	Nominal Air Volume (cfm)	800	1000	1200	1400	1800	2000	2400	3000
Coil	Copper tube	3/8"(9.52mm)OD seamless copper tube							
	Fins	Hi-efficiency wavy corrugated aluminium blue fins							
	Fins per Inch (fpi)	12	12	12	12	12	12	12	12
	Coil Length (mm)	800	900	1000	1160	1200	1330	1350	1680
	Coil Height (mm)	250	250	300	300	350	350	400	400
Fan	Fan type	Double inlet centrifugal forward curve, steel wheel, direct driven							
	Quantity (No)	2	2	2	2	2	2	2	2
Motor	Voltage (V)	220-240V/1Ph/50-60HZ,110-127V/1Ph/50HZ							
	Motor Speed	3-speed							
	Quantity (No)	1	1	1	1	1	1	1	1
	Max Power Input (W)	368	460	564	650	845	934	1128	1445
Fan sound level @ 1 mtr	H (dBA)	50	52	55	58	59	60	64	68
	M (dBA)	44	44	46	49	49	51	53	57
	L (dBA)	37	38	40	40	42	52	44	49
Water pipe	Cooling coil	3/4"FTP	3/4"FTP	3/4"FTP	1"FTP	1"FTP	1"FTP	1"FTP	1"FTP
	Heating coil (4 pipes unit)	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
Drain pipe		3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP
Dimension	Length (mm)	1100	1200	1300	1460	1500	1630	1650	1980
	Width (mm)	578	578	578	698	698	873	873	873
	Height (mm)	360	360	410	410	470	470	520	520
Weight	Net Weight (kg)	42	50	55	72	76	83	93	108

The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°C WB	Heating: Entering air temperature: +20°C DB
Water inlet/outlet: +7/12°C	Water inlet temperature: +70°C/60°C
ESP: 110Pa	ESP: 110Pa

Performance Data - FWHCD

3+1 Rows, 4 Pipes

	Model No	FWHCD31- 80	FWHCD31- 100	FWHCD31- 120	FWHCD31- 140
Air flow	H (cfm)	589	892	1208	1416
	M (cfm)	525	714	967	1133
	L (cfm)	394	535	725	850
Total Cooling Capacity	H (kW)	5.20	7.40	10.26	12.42
	M (kW)	4.80	6.36	8.81	10.64
	L (kW)	3.93	5.21	7.20	8.68
Sensible Cooling Capacity	H (kW)	3.83	5.47	7.50	8.94
	M (kW)	3.51	4.64	6.35	7.57
	L (kW)	2.82	3.73	5.11	6.08
Heating Capacity	H (kW)	5.71	7.95	10.95	13.16
	M (kW)	5.31	6.92	9.53	11.44
	L (kW)	4.42	5.76	7.93	9.51
Cooling Water Flow Rate	H (L/S)	0.25	0.35	0.49	0.59
	M (L/S)	0.23	0.30	0.42	0.51
	L (L/S)	0.19	0.25	0.34	0.41
Cooling Water Pressure Drop	H (kPa)	6.34	11.36	15.26	22.76
	M (kPa)	5.72	9.31	12.49	18.57
	L (kPa)	4.39	7.16	9.58	14.20
Heating Water Flow Rate	H (L/S)	0.14	0.19	0.26	0.31
	M (L/S)	0.13	0.17	0.23	0.27
	L (L/S)	0.11	0.14	0.19	0.23
Heating Water Pressure Drop	H (kPa)	2.30	4.07	6.56	9.78
	M (kPa)	2.09	3.37	5.42	8.08
	L (kPa)	1.62	2.62	4.22	6.27

3+1 Rows, 4 Pipes

	Model No	FWHCD31- 180	FWHCD31- 200	FWHCD31- 240	FWHCD31- 300
Air flow	H (cfm)	1923	2113	2418	2984
	M (cfm)	1538	1580	1934	2238
	L (cfm)	1153	1185	1451	1678
Total Cooling Capacity	H (kW)	16.37	18.44	21.24	27.33
	M (kW)	14.04	15.24	18.19	22.56
	L (kW)	11.47	12.26	14.83	18.10
Sensible Cooling Capacity	H (kW)	11.81	13.17	15.15	19.16
	M (kW)	9.41	9.96	12.83	14.49
	L (kW)	8.06	8.52	10.32	12.39
Heating Capacity	H (kW)	17.20	19.30	22.25	28.44
	M (kW)	14.96	15.67	19.33	23.08
	L (kW)	12.45	13.35	16.07	19.64
Cooling Water Flow Rate	H (L/S)	0.78	0.79	1.01	1.02
	M (L/S)	0.67	0.73	0.87	1.08
	L (L/S)	0.55	0.59	0.71	0.86
Cooling Water Pressure Drop	H (kPa)	27.62	35.79	36.72	63.60
	M (kPa)	22.57	27.89	29.95	49.46
	L (kPa)	17.30	20.94	22.91	37.03
Heating Water Flow Rate	H (L/S)	0.41	0.46	0.53	0.68
	M (L/S)	0.36	0.37	0.46	0.55
	L (L/S)	0.30	0.32	0.38	0.47
Heating Water Pressure Drop	H (kPa)	13.79	17.89	21.00	36.57
	M (kPa)	11.39	13.45	17.33	27.48
	L (kPa)	8.86	10.81	13.46	22.04

4+2 Rows, 4 Pipes

	Model No	FWHCD42- 80	FWHCD42- 100	FWHCD42- 120	FWHCD42- 140
Air flow	H (cfm)	539	827	1122	1315
	M (cfm)	503	690	924	1083
	L (cfm)	377	518	693	812
Total Cooling Capacity	H (kW)	6.07	8.69	11.98	14.35
	M (kW)	5.77	7.66	10.43	12.49
	L (kW)	4.66	6.21	8.45	10.10
Sensible Cooling Capacity	H (kW)	3.91	5.68	7.77	9.22
	M (kW)	3.70	4.94	6.68	7.93
	L (kW)	2.93	3.93	5.31	6.30
Heating Capacity	H (kW)	8.80	12.60	17.21	20.41
	M (kW)	8.34	11.03	14.92	17.68
	L (kW)	6.70	8.89	12.01	14.22
Cooling Water Flow Rate	H (L/S)	0.29	0.41	0.57	0.68
	M (L/S)	0.28	0.37	0.50	0.60
	L (L/S)	0.22	0.30	0.40	0.48
Cooling Water Pressure Drop	H (kPa)	10.45	18.09	23.70	34.13
	M (kPa)	9.84	15.54	20.10	28.90
	L (kPa)	7.64	12.11	15.62	22.42
Heating Water Flow Rate	H (L/S)	0.21	0.30	0.41	0.49
	M (L/S)	0.20	0.26	0.36	0.42
	L (L/S)	0.16	0.21	0.29	0.34
Heating Water Pressure Drop	H (kPa)	4.16	7.65	12.18	17.83
	M (kPa)	3.87	6.38	10.01	14.65
	L (kPa)	2.86	4.74	7.44	10.88

ARI- 440 Standard Rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB Water inlet/outlet: +45/55°F ESP: 0.44 in H2O	Heating: Entering air temperature: +68°F DB Water inlet temperature: +140°F Water flow rate as for the cooling conditions ESP: 0.44 in H2O

4 Rows, 2 Pipes

	Model No	FWHCD4-80	FWHCD4-100	FWHCD4-120	FWHCD4-140
Air flow	H (cfm)	589	892	1208	1415
	M (cfm)	525	714	966	1132
	L (cfm)	394	535	725	849
Total Cooling Capacity	H (Btu/h)	20410	28874	39864	48055
	M (Btu/h)	18840	24847	34267	41229
	L (Btu/h)	15393	20341	28021	33618
Sensible Cooling Capacity	H (Btu/h)	14642	20956	28635	34062
	M (Btu/h)	13413	17713	24232	28806
	L (Btu/h)	10683	14198	19386	23038
Heating Capacity	H (Btu/h)	34164	48533	66042	78021
	M (Btu/h)	31297	41127	55973	66007
	L (Btu/h)	25017	32935	44813	52902
Water Flow Rate	H (Gpm)	4.12	5.86	8.08	9.67
	M (Gpm)	3.8	5.07	6.97	8.24
	L (Gpm)	3.17	4.12	5.71	6.82
Water Pressure Drop	H (ftH2O)	3.07	5.1	6.87	9.95
	M (ftH2O)	2.79	4.37	5.73	8.29
	L (ftH2O)	2.19	3.44	4.5	6.49

4+2 Rows, 4 Pipes

	Model No	FWHCD42- 180	FWHCD42- 200	FWHCD42- 240	FWHCD42- 300
Air flow	H (cfm)	1785	1963	2244	2754
	M (cfm)	1469	1512	1848	2134
	L (cfm)	1102	1134	1386	1601
Total Cooling Capacity	H (kW)	18.92	21.18	24.37	30.88
	M (kW)	16.49	17.58	21.21	25.66
	L (kW)	13.37	14.20	17.16	20.65
Sensible Cooling Capacity	H (kW)	12.22	13.59	15.61	19.55
	M (kW)	10.52	11.11	13.43	16.03
	L (kW)	8.38	8.83	10.69	12.72
Heating Capacity	H (kW)	26.92	29.95	34.40	43.08
	M (kW)	23.35	24.70	29.82	35.65
	L (kW)	18.83	19.87	24.02	28.63
Cooling Water Flow Rate	H (L/S)	0.90	1.01	1.16	1.47
	M (L/S)	0.79	0.84	1.01	1.22
	L (L/S)	0.64	0.68	0.82	0.99
Cooling Water Pressure Drop	H (kPa)	40.85	51.83	53.02	87.58
	M (kPa)	34.66	41.47	44.94	70.20
	L (kPa)	26.97	32.14	34.87	54.16
Heating Water Flow Rate	H (L/S)	0.64	0.71	0.82	1.03
	M (L/S)	0.56	0.59	0.71	0.85
	L (L/S)	0.45	0.47	0.57	0.68
Heating Water Pressure Drop	H (kPa)	25.46	32.64	38.13	64.53
	M (kPa)	20.95	25.08	31.36	49.82
	L (kPa)	15.61	18.63	23.32	36.90

4 Rows, 2 Pipes

	Model No	FWHCD4-180	FWHCD4-200	FWHCD4-240	FWHCD4-300
Air flow	H (cfm)	1922	2112	2416	2982
	M (cfm)	1537	1579	1933	2236
	L (cfm)	1153	1184	1450	1677
Total Cooling Capacity	H (Btu/h)	63175	70922	81741	104608
	M (Btu/h)	54301	58089	70137	85564
	L (Btu/h)	44369	47304	57202	69455
Sensible Cooling Capacity	H (Btu/h)	45017	50137	57646	72731
	M (Btu/h)	38123	40308	48772	58533
	L (Btu/h)	30580	32253	39079	46758
Heating Capacity	H (Btu/h)	102834	114097	131196	164302
	M (Btu/h)	87270	91946	111161	132390
	L (Btu/h)	70035	73550	89182	105701
Water Flow Rate	H (Gpm)	12.68	14.27	16.48	21.08
	M (Gpm)	10.94	11.73	14.11	17.28
	L (Gpm)	8.88	9.51	11.57	13.95
Water Pressure Drop	H (ftH2O)	11.88	15.13	15.5	25.91
	M (ftH2O)	9.91	11.91	12.91	20.38
	L (ftH2O)	7.79	9.32	10.12	15.88

6 Rows, 2 Pipes

	Model No	FWHCD6-80	FWHCD6-100	FWHCD6-120	FWHCD6-140
Air flow	H (cfm)	539	826	1121	1314
	M (cfm)	502	689	923	1082
	L (cfm)	377	517	692	812
Total Cooling Capacity	H (Btu/h)	26212	37816	51673	61297
	M (Btu/h)	24778	32970	44574	52799
	L (Btu/h)	19625	26280	35461	41946
Sensible Cooling Capacity	H (Btu/h)	17065	24983	34062	40205
	M (Btu/h)	16075	21570	29045	34267
	L (Btu/h)	12560	16894	22765	26860
Heating Capacity	H (Btu/h)	37748	55461	75359	88601
	M (Btu/h)	35563	47645	63994	75188
	L (Btu/h)	27543	37099	49796	58499
Water Flow Rate	H (Gpm)	5.23	7.61	10.46	12.36
	M (Gpm)	5.07	6.66	9.03	10.62
	L (Gpm)	3.96	5.23	7.13	8.40
Water Pressure Drop	H (ftH2O)	6.20	10.83	14.04	19.97
	M (ftH2O)	5.81	9.19	11.77	16.72
	L (ftH2O)	4.39	7.00	8.95	12.69

The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB	Heating: Entering air temperature: +68°F DB
Water inlet/outlet: +45/55°F	Water inlet temperature: +180°F/140°F
ESP: 0.44 in H2O	Water flow rate as for the cooling conditions
	ESP: 0.44 in H2O

3+1 Rows, 4 Pipes

	Model No	FWHCD31-80	FWHCD31-100	FWHCD31-120	FWHCD31-140
Air flow	H (cfm)	589	892	1208	1416
	M (cfm)	525	714	967	1133
	L (cfm)	394	535	725	850
Total Cooling Capacity	H (Btu/h)	16178	23072	32116	39113
	M (Btu/h)	14983	19898	27679	33618
	L (Btu/h)	12321	16348	22696	27509
Sensible Cooling Capacity	H (Btu/h)	12321	17611	24130	28840
	M (Btu/h)	11297	14915	20478	24437
	L (Btu/h)	9079	12014	16485	19659
Heating Capacity	H (Btu/h)	16997	23993	33823	41775
	M (Btu/h)	15905	21092	29693	36587
	L (Btu/h)	13413	17816	24983	30751
Cooling Water Flow Rate	H (Gpm)	3.33	4.60	6.50	7.93
	M (Gpm)	3.01	3.96	5.55	6.82
	L (Gpm)	2.54	3.33	4.60	5.55
Cooling Water Pressure Drop	H (ftH2O)	1.66	2.97	4.02	6.04
	M (ftH2O)	1.50	2.45	3.30	4.95
	L (ftH2O)	1.16	1.90	2.55	3.81
Heating Water Flow Rate	H (Gpm)	0.79	1.27	1.74	2.06
	M (Gpm)	0.79	1.11	1.43	1.90
	L (Gpm)	0.63	0.95	1.27	1.59
Heating Water Pressure Drop	H (ftH2O)	0.21	0.39	0.64	1.00
	M (ftH2O)	0.20	0.32	0.54	0.83
	L (ftH2O)	0.15	0.26	0.42	0.66

6 Rows, 2 Pipes

	Model No	FWHCD6-180	FWHCD6-200	FWHCD6-240	FWHCD6-300
Air flow	H (cfm)	1784	1962	2242	2752
	M (cfm)	1469	1511	1846	2133
	L (cfm)	1101	1134	1385	1599
Total Cooling Capacity	H (Btu/h)	73994	83038	95530	121435
	M (Btu/h)	64403	68704	83004	100445
	L (Btu/h)	51946	55120	66724	80171
Sensible Cooling Capacity	H (Btu/h)	50478	56212	64540	81059
	M (Btu/h)	43277	45632	55291	65939
	L (Btu/h)	34198	35939	43618	51809
Heating Capacity	H (Btu/h)	114131	126656	145155	180718
	M (Btu/h)	97441	102083	123858	146213
	L (Btu/h)	76485	79898	97032	114062
Water Flow Rate	H (Gpm)	14.90	16.80	19.18	24.41
	M (Gpm)	13.00	13.79	16.80	20.29
	L (Gpm)	10.46	11.10	13.47	16.17
Water Pressure Drop	H (ftH2O)	4.70	5.98	6.11	10.14
	M (ftH2O)	3.98	4.77	5.17	8.08
	L (ftH2O)	3.08	3.67	3.98	6.17

3+1 Rows, 4 Pipes

	Model No	FWHCD31-180	FWHCD31-200	FWHCD31-240	FWHCD31-300
Air flow	H (cfm)	1923	2113	2418	2984
	M (cfm)	1538	1580	1934	2238
	L (cfm)	1153	1185	1451	1678
Total Cooling Capacity	H (Btu/h)	51536	58260	67168	86963
	M (Btu/h)	44335	47748	57680	71161
	L (Btu/h)	36348	39011	36417	36451
Sensible Cooling Capacity	H (Btu/h)	38123	42560	48977	62117
	M (Btu/h)	32355	34335	41536	50137
	L (Btu/h)	26075	27611	26144	26178
Heating Capacity	H (Btu/h)	54676	62390	72117	94984
	M (Btu/h)	47919	52424	63106	79694
	L (Btu/h)	40308	43994	52970	66622
Cooling Water Flow Rate	H (Gpm)	10.46	11.73	13.47	17.59
	M (Gpm)	8.88	9.67	11.57	14.27
	L (Gpm)	7.29	7.93	9.51	11.73
Cooling Water Pressure Drop	H (ftH2O)	7.33	9.55	9.80	17.13
	M (ftH2O)	6.02	7.35	8.02	13.17
	L (ftH2O)	4.63	5.64	6.16	10.05
Heating Water Flow Rate	H (Gpm)	2.69	3.17	3.65	4.76
	M (Gpm)	2.38	2.69	3.17	3.96
	L (Gpm)	2.06	2.22	2.69	3.33
Heating Water Pressure Drop	H (ftH2O)	1.40	1.87	2.20	3.99
	M (ftH2O)	1.17	1.47	1.83	3.14
	L (ftH2O)	0.93	1.16	1.44	2.46

4+2 Rows, 4 Pipes

	Model No	FWHCD42-80	FWHCD42-100	FWHCD42-120	FWHCD42-140
Air flow	H (cfm)	539	827	1122	1315
	M (cfm)	503	690	924	1083
	L (cfm)	377	518	693	812
Total Cooling Capacity	H (Btu/h)	12662	18396	25188	29932
	M (Btu/h)	11980	16007	21673	25768
	L (Btu/h)	9522	12765	17270	20512
Sensible Cooling Capacity	H (Btu/h)	30342	43516	60069	72151
	M (Btu/h)	28874	38362	52390	62902
	L (Btu/h)	23447	31229	42628	51093
Heating Capacity	H (Btu/h)	819	1195	1638	1980
	M (Btu/h)	785	1058	1433	1741
	L (Btu/h)	648	853	1160	1399
Cooling Water Flow Rate	H (Gpm)	3.80	5.55	7.61	9.19
	M (Gpm)	3.65	4.91	6.66	8.08
	L (Gpm)	3.01	3.96	5.39	6.50
Cooling Water Pressure Drop	H (ftH ₂ O)	2.86	4.95	6.51	9.42
	M (ftH ₂ O)	2.70	4.26	5.54	8.00
	L (ftH ₂ O)	2.11	3.34	4.33	2.89
Heating Water Flow Rate	H (Gpm)	1.59	2.22	3.01	3.65
	M (Gpm)	1.43	1.90	18.54	3.17
	L (Gpm)	1.11	1.59	2.06	2.54
Heating Water Pressure Drop	H (ftH ₂ O)	0.47	0.87	1.41	2.10
	M (ftH ₂ O)	0.44	0.74	1.17	1.74
	L (ftH ₂ O)	0.33	0.56	0.88	1.31

District Cooling Standard Rating

The following rating conditions are used:

Cooling: Entering air temperature: +24.4 °CDB; +17.2 °C WB

Water inlet/outlet: +5.5/14.4°C

ESP : 110Pa

4 Rows, 2 Pipes

	Model No	FWHCD4-80	FWHCD4-100	FWHCD4-120	FWHCD4-140
Air flow	H (cfm)	589	892	1208	1415
	M (cfm)	525	714	966	1132
	L (cfm)	394	535	725	849
Total Cooling Capacity	H (kW)	3.69	5.24	7.43	9.25
	M (kW)	3.45	4.61	6.51	8.08
	L (kW)	2.90	3.88	5.46	6.75
Sensible Cooling Capacity	H (kW)	3.52	5.06	6.98	8.39
	M (kW)	3.23	4.30	2.92	7.12
	L (kW)	2.59	3.46	4.77	5.73
Water Flow Rate	H (L/S)	0.10	0.14	0.20	0.25
	M (L/S)	0.09	0.12	0.17	0.22
	L (L/S)	0.08	0.10	0.15	0.18
Water Pressure Drop	H (kPa)	2.89	4.96	6.73	10.14
	M (kPa)	2.67	4.25	5.75	8.63
	L (kPa)	2.18	3.46	4.66	6.95

4+2 Rows, 4 Pipes

	Model No	FWHCD42-180	FWHCD42-200	FWHCD42-240	FWHCD42-300
Air flow	H (cfm)	1785	1963	2244	2754
	M (cfm)	1469	1512	1848	2134
	L (cfm)	1102	1134	1386	1601
Total Cooling Capacity	H (Btu/h)	39659	44164	50751	63721
	M (Btu/h)	34198	36144	43721	52287
	L (Btu/h)	27304	28772	34847	41570
Sensible Cooling Capacity	H (Btu/h)	95086	106656	122731	155974
	M (Btu/h)	82970	88670	106998	129967
	L (Btu/h)	67509	71980	86929	105223
Heating Capacity	H (Btu/h)	2628	2935	3379	4300
	M (Btu/h)	2287	2457	2969	3584
	L (Btu/h)	1877	1980	2389	2901
Cooling Water Flow Rate	H (Gpm)	12.20	13.63	15.69	19.97
	M (Gpm)	10.62	11.41	13.79	16.64
	L (Gpm)	8.72	9.19	11.10	13.47
Cooling Water Pressure Drop	H (ftH2O)	11.26	14.34	14.68	24.38
	M (ftH2O)	9.59	11.52	12.47	19.60
	L (ftH2O)	7.50	8.96	9.73	15.19
Heating Water Flow Rate	H (Gpm)	4.76	5.39	6.18	7.77
	M (Gpm)	4.12	4.44	5.39	6.50
	L (Gpm)	3.33	3.65	4.28	5.23
Heating Water Pressure Drop	H (ftH2O)	3.00	3.89	4.55	7.86
	M (ftH2O)	2.49	3.02	3.77	6.12
	L (ftH2O)	1.88	2.27	2.84	4.59

4 Rows, 2 Pipes

	Model No	FWHCD4-180	FWHCD4-200	FWHCD4-240	FWHCD4-300
Air flow	H (cfm)	1922	2112	2416	2982
	M (cfm)	1537	1579	1933	2236
	L (cfm)	1153	1184	1450	1677
Total Cooling Capacity	H (kW)	12.14	13.92	16.10	21.35
	M (kW)	10.62	11.65	14.04	17.79
	L (kW)	8.88	9.70	11.70	14.73
Sensible Cooling Capacity	H (kW)	11.09	12.43	14.31	18.28
	M (kW)	9.43	10.04	12.15	14.79
	L (kW)	7.60	8.08	9.80	11.88
Water Flow Rate	H (L/S)	0.33	0.37	0.43	0.57
	M (L/S)	0.28	0.31	0.38	0.48
	L (L/S)	0.24	0.26	0.31	0.39
Water Pressure Drop	H (kPa)	12.08	15.75	16.22	28.29
	M (kPa)	10.28	12.73	13.77	22.75
	L (kPa)	8.31	10.22	11.08	18.15

6 Rows, 2 Pipes

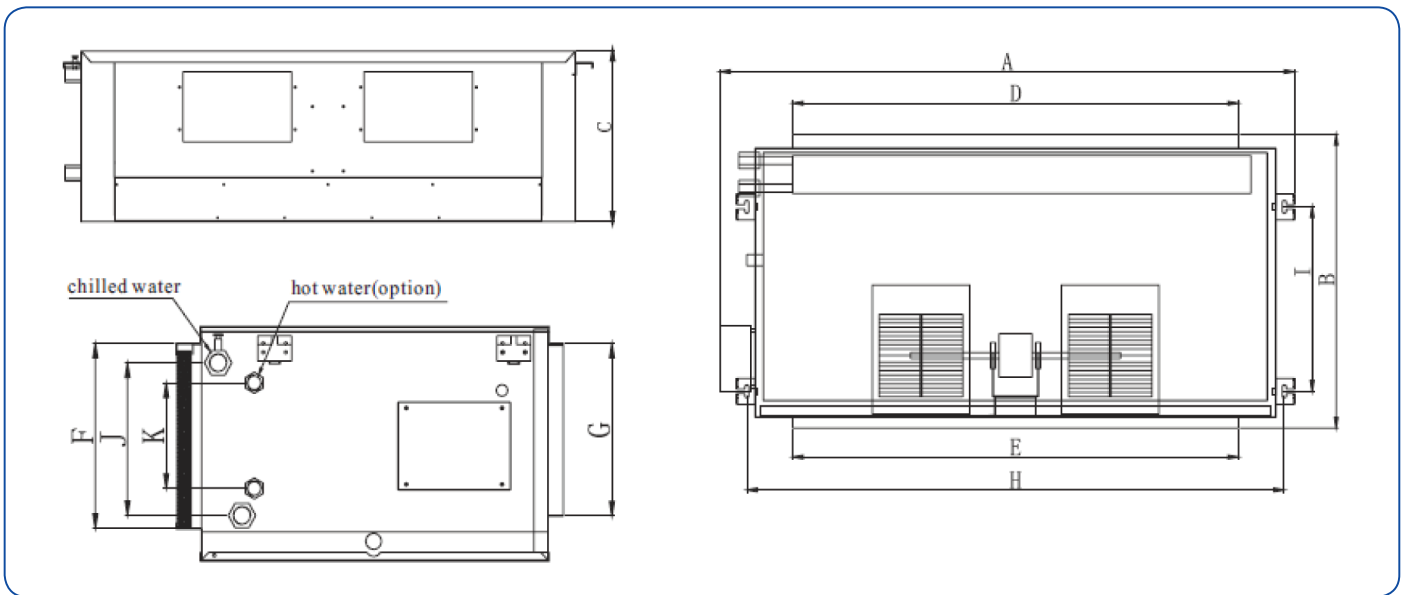
	Model No	FWHCD6-80	FWHCD6-100	FWHCD6-120	FWHCD6-140
Air flow	H (cfm)	539	826	1121	1314
	M (cfm)	502	689	923	1082
	L (cfm)	377	517	692	812
Total Cooling Capacity	H (kW)	5.74	8.18	11.31	13.61
	M (kW)	5.46	7.25	9.91	11.91
	L (kW)	4.43	5.92	8.07	9.67
Sensible Cooling Capacity	H (kW)	4.38	6.39	8.76	10.42
	M (kW)	4.14	5.55	7.51	8.94
	L (kW)	3.26	4.39	5.95	7.07
Water Flow Rate	H (L/S)	0.15	0.22	0.30	0.37
	M (L/S)	0.15	0.19	0.27	0.32
	L (L/S)	0.12	0.16	0.22	0.26
Water Pressure Drop	H (kPa)	7.37	12.67	16.67	24.13
	M (kPa)	6.95	10.96	14.23	20.57
	L (kPa)	5.41	8.60	11.13	16.04

Dimensional Data - FWHCD

Model No	A	B	C	D	E	F	G	H	I	J
FWHCD-80	1090	568	340	780	780	255	255	1000	280	213
FWHCD-100	1190	568	340	880	880	255	255	1100	280	213
FWHCD-120	1290	568	390	980	980	305	305	1200	280	260
FWHCD-140	1450	688	390	1140	1000	305	305	1360	425	260
FWHCD-180	1490	688	450	1180	1100	365	305	1400	425	310
FWHCD-200	1620	863	450	1310	1200	365	305	1530	425	310
FWHCD-240	1640	863	500	1330	1200	415	355	1550	575	360
FWHCD-300	1970	863	500	1660	1500	415	355	1880	575	360

6 Rows, 2 Pipes

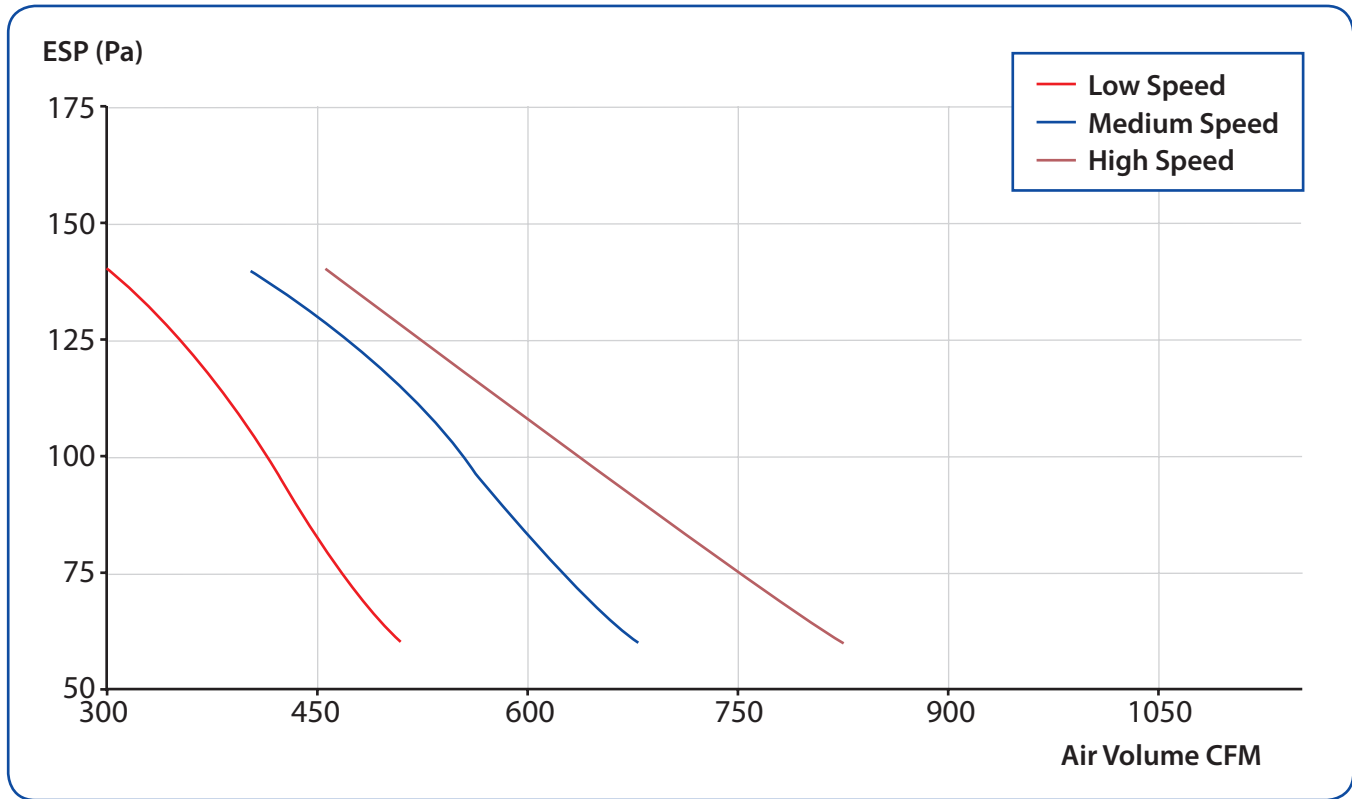
	Model No	FWHCD6-180	FWHCD6-200	FWHCD6-240	FWHCD6-300
Air flow	H (cfm)	1784	1962	2242	2752
	M (cfm)	1469	1511	1846	2133
	L (cfm)	1101	1134	1385	1599
Total Cooling Capacity	H (kW)	14.76	16.92	19.56	25.78
	M (kW)	13.11	14.36	17.31	21.81
	L (kW)	10.90	11.86	14.32	17.86
Sensible Cooling Capacity	H (kW)	12.49	14.03	16.13	20.57
	M (kW)	10.77	11.48	13.90	16.87
	L (kW)	8.59	9.13	11.07	13.39
Water Flow Rate	H (L/S)	0.40	0.45	0.52	0.69
	M (L/S)	0.35	0.39	0.46	0.58
	L (L/S)	0.29	0.32	0.38	0.48
Water Pressure Drop	H (kPa)	4.99	6.51	6.70	11.61
	M (kPa)	4.33	5.36	5.79	9.51
	L (kPa)	3.47	4.26	4.62	7.49



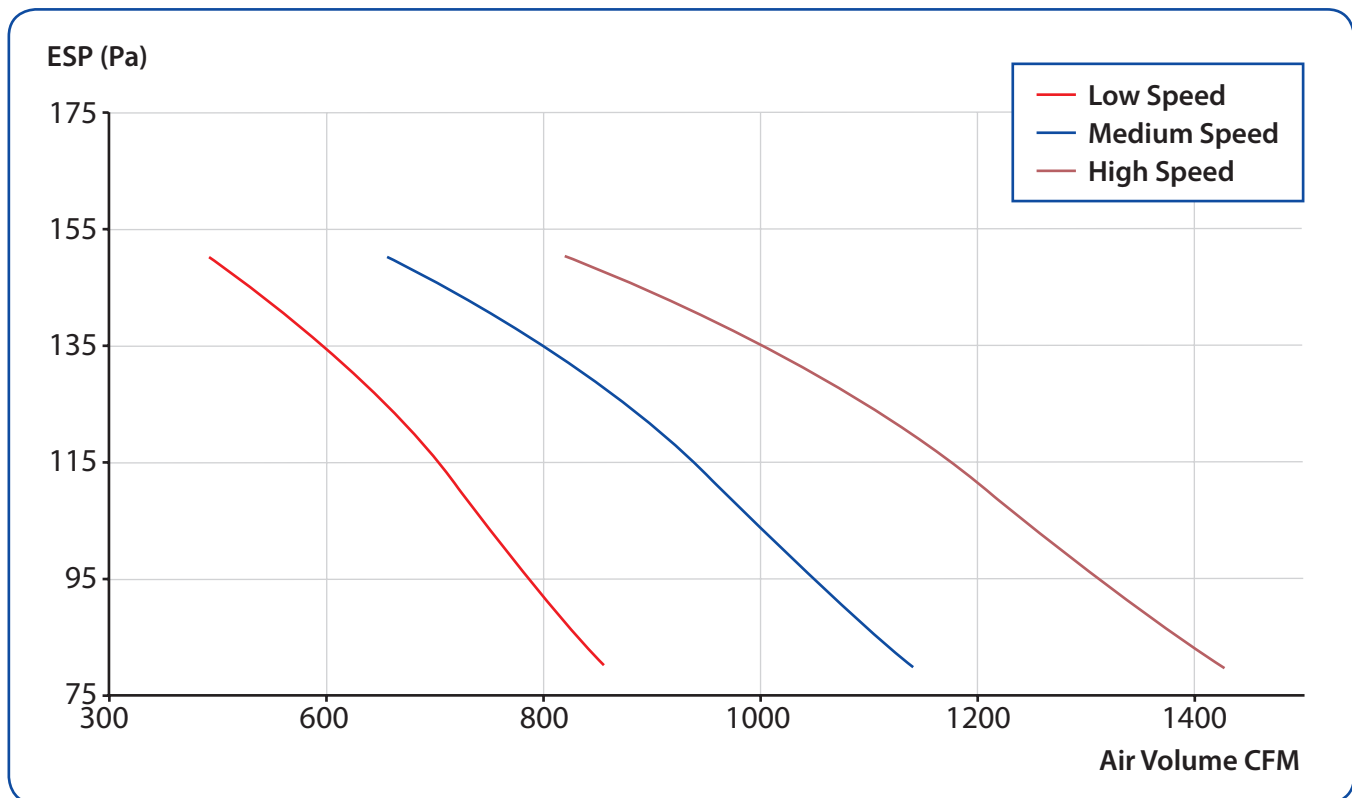
Dimensions are in mm

Air Vol. vs ESP - FWHCD (Fan Coil Unit Water Cooled High Static Ceiling Ducted)

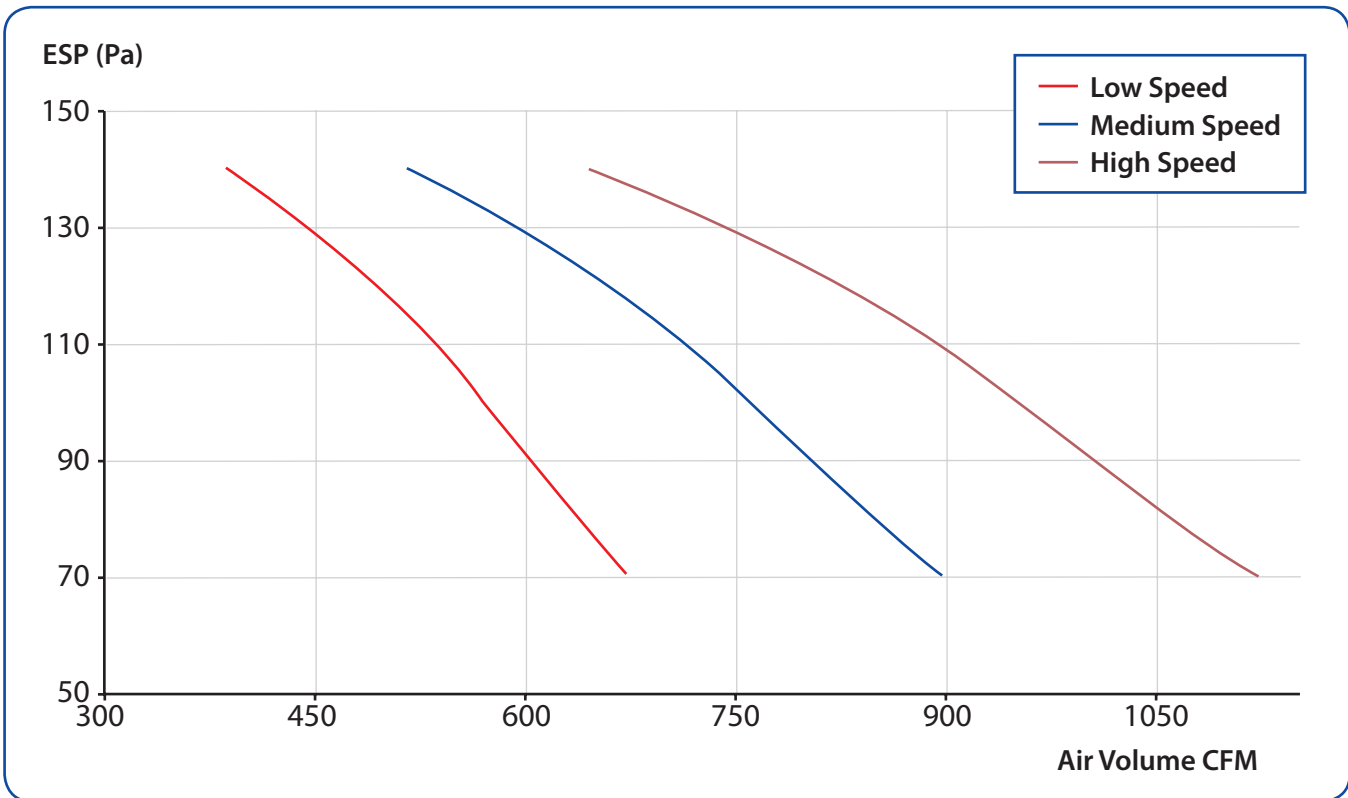
MODEL - FWHCD4



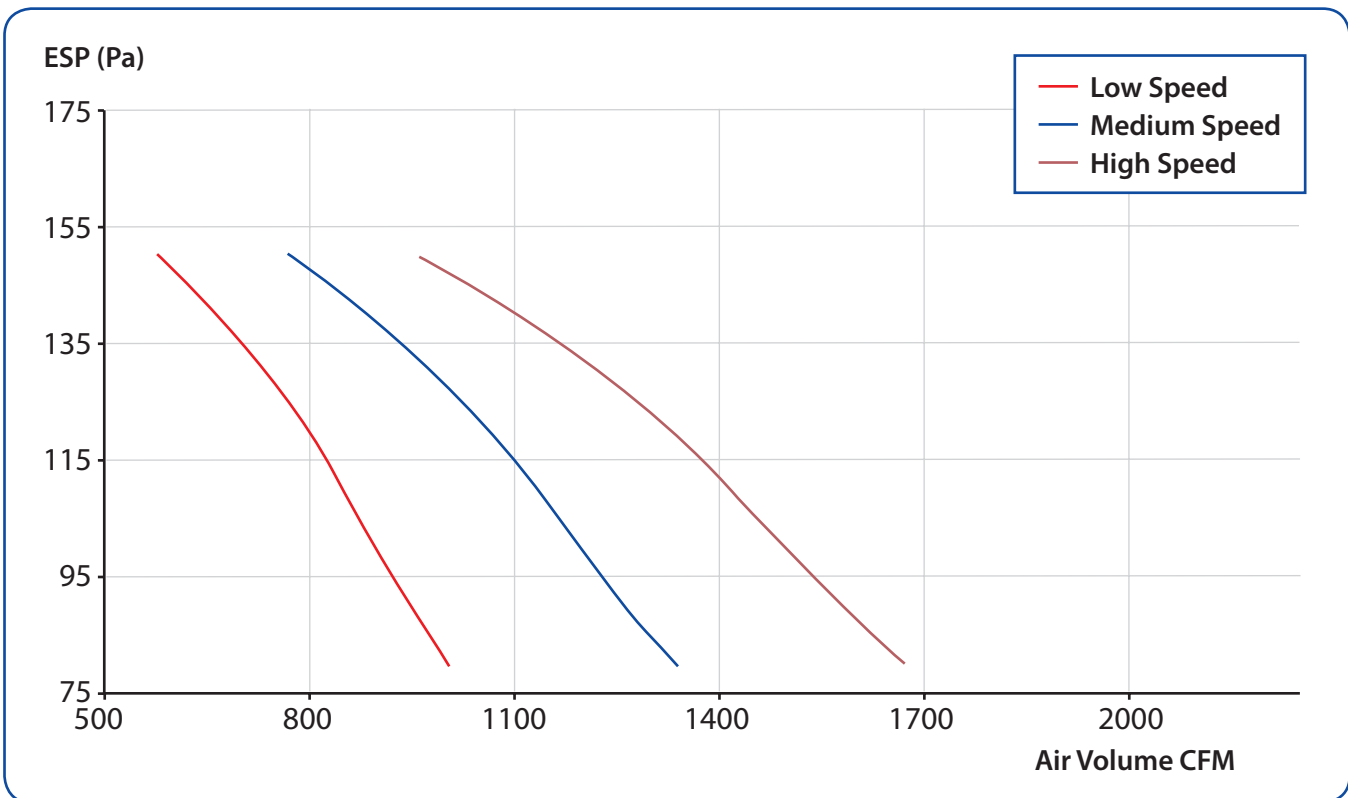
Air Vol. vs ESP for Model No. FWHCD4-80



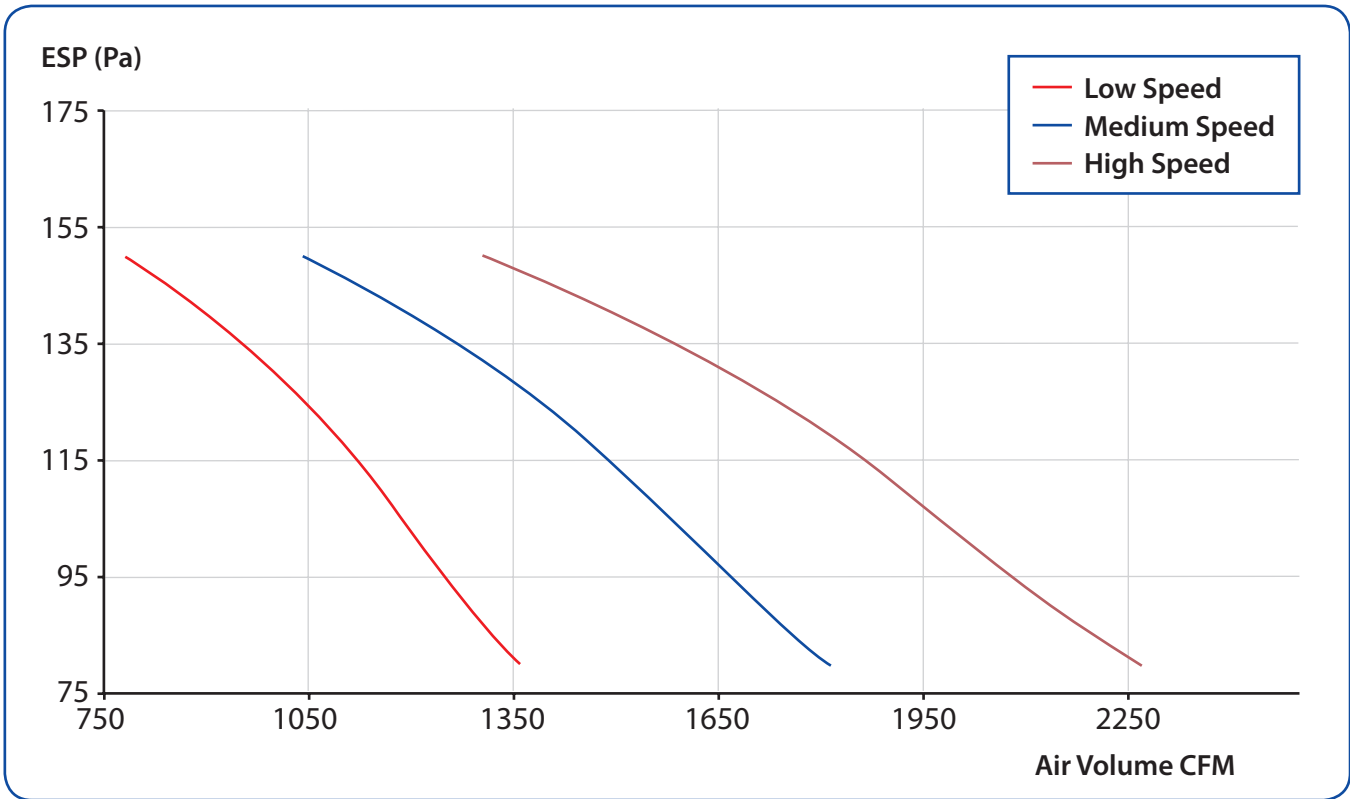
Air Vol. vs ESP for Model No. FWHCD4-120



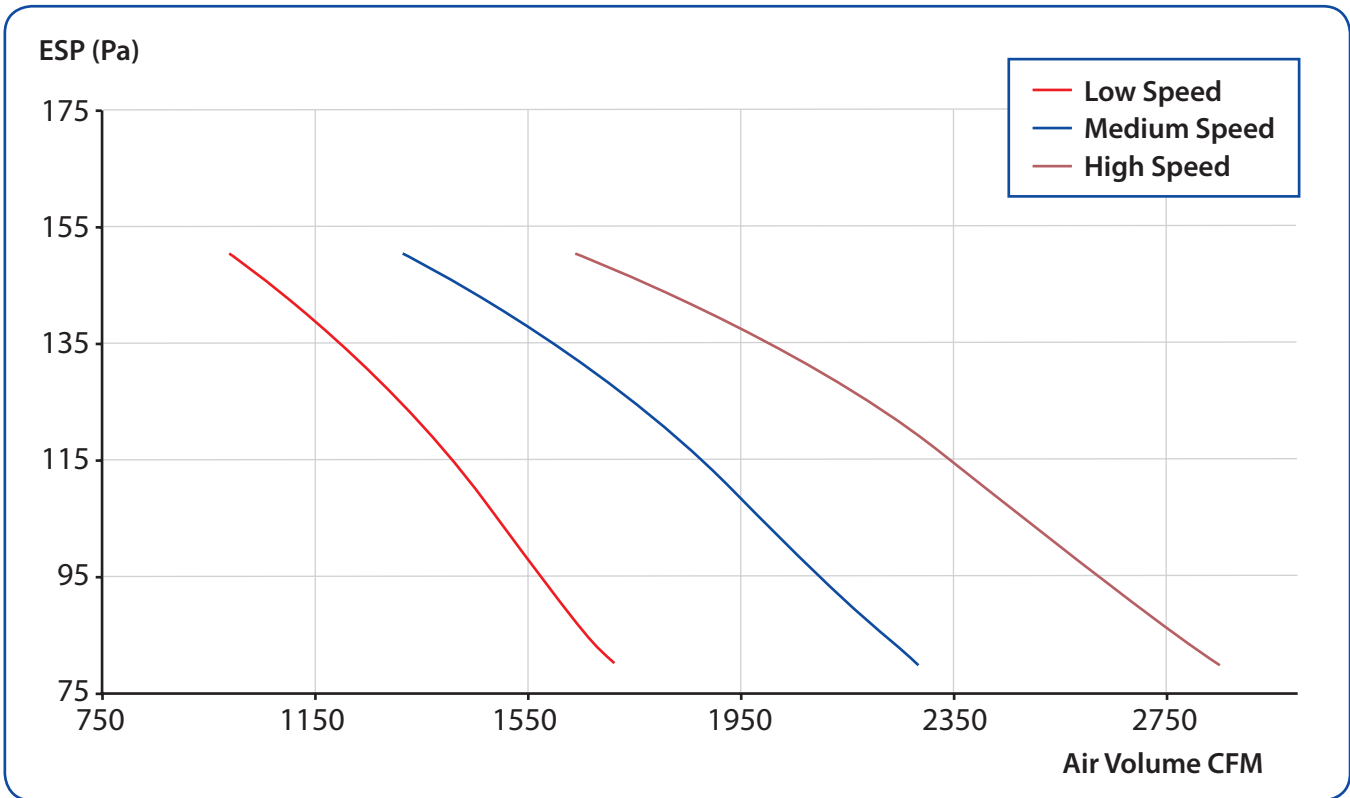
Air Vol. vs ESP for Model No. FWHCD4-100



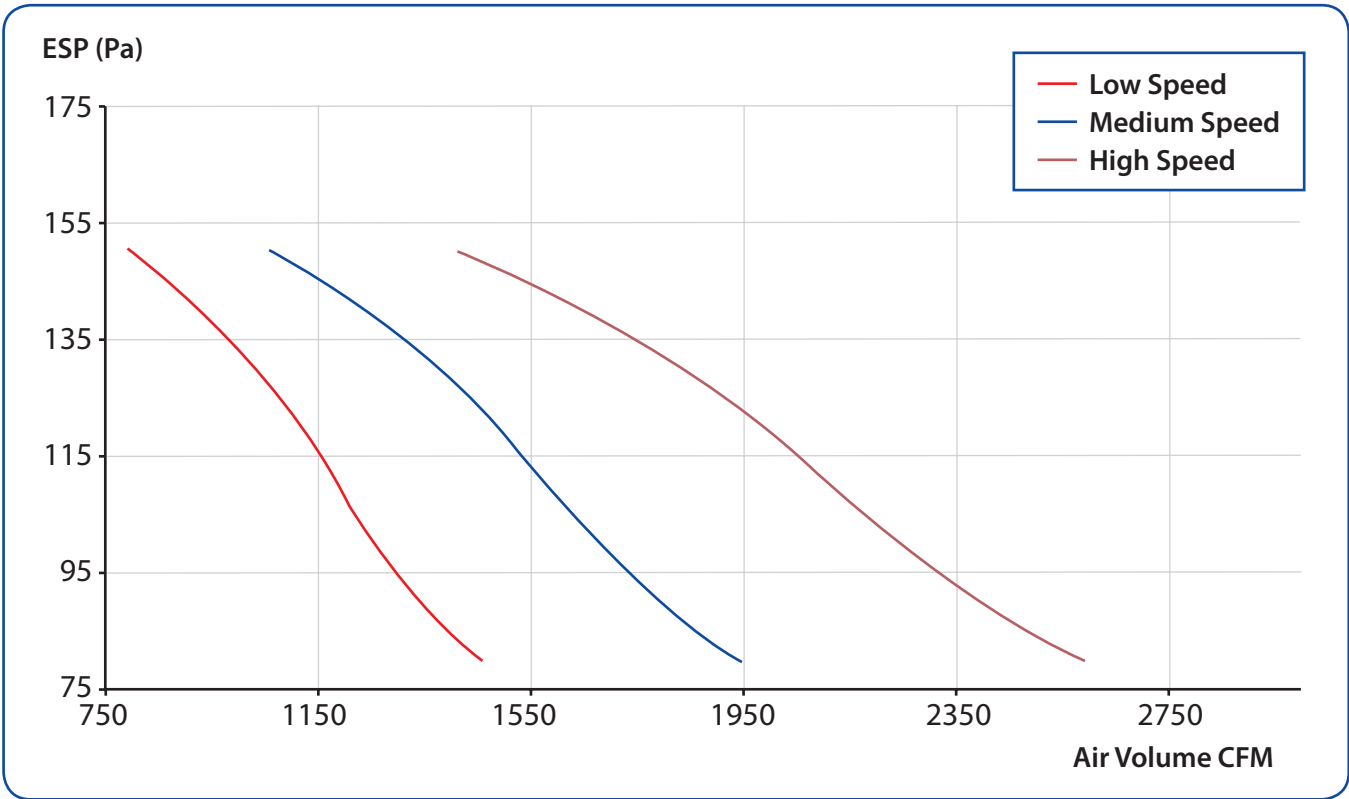
Air Vol. vs ESP for Model No. FWHCD4-140



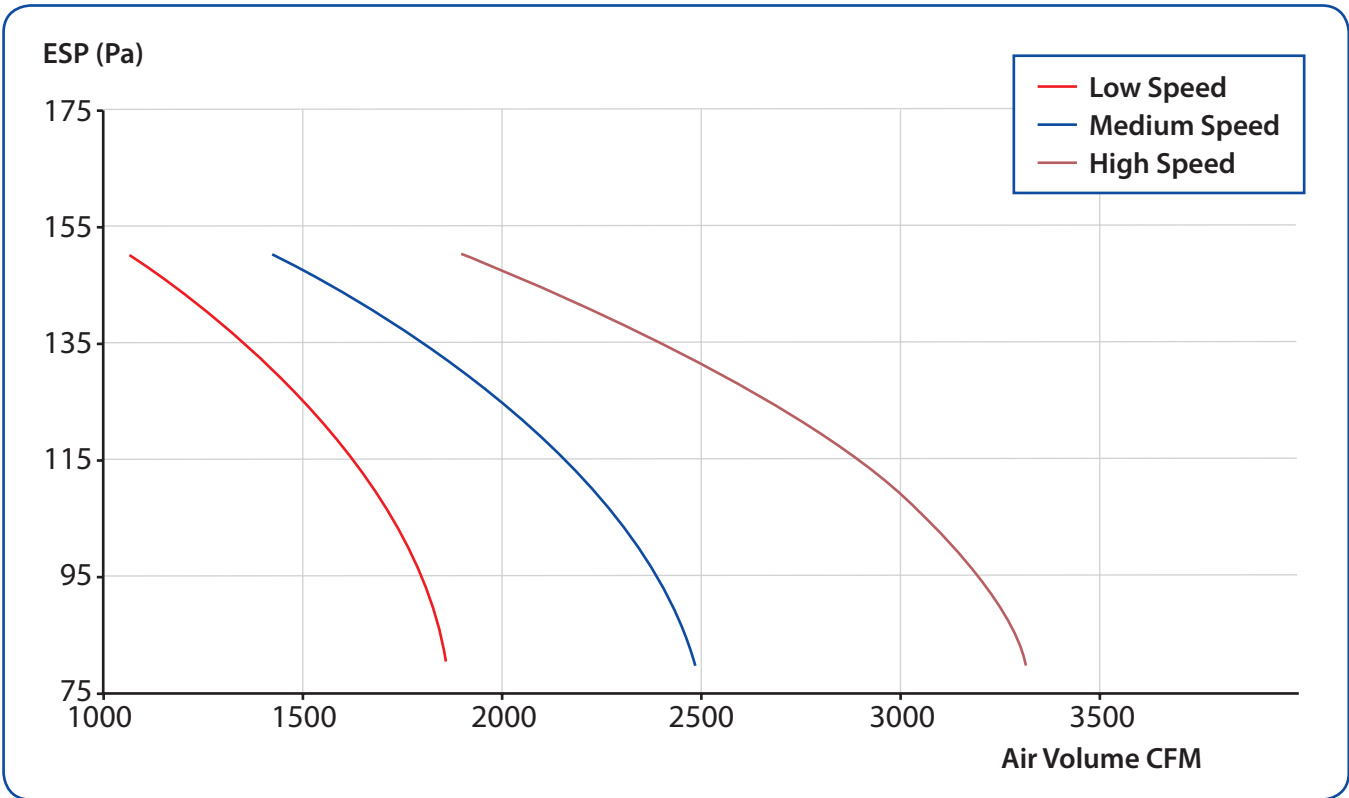
Air Vol. vs ESP for Model No. FWHCD4-180



Air Vol. vs ESP for Model No. FWHCD4-240

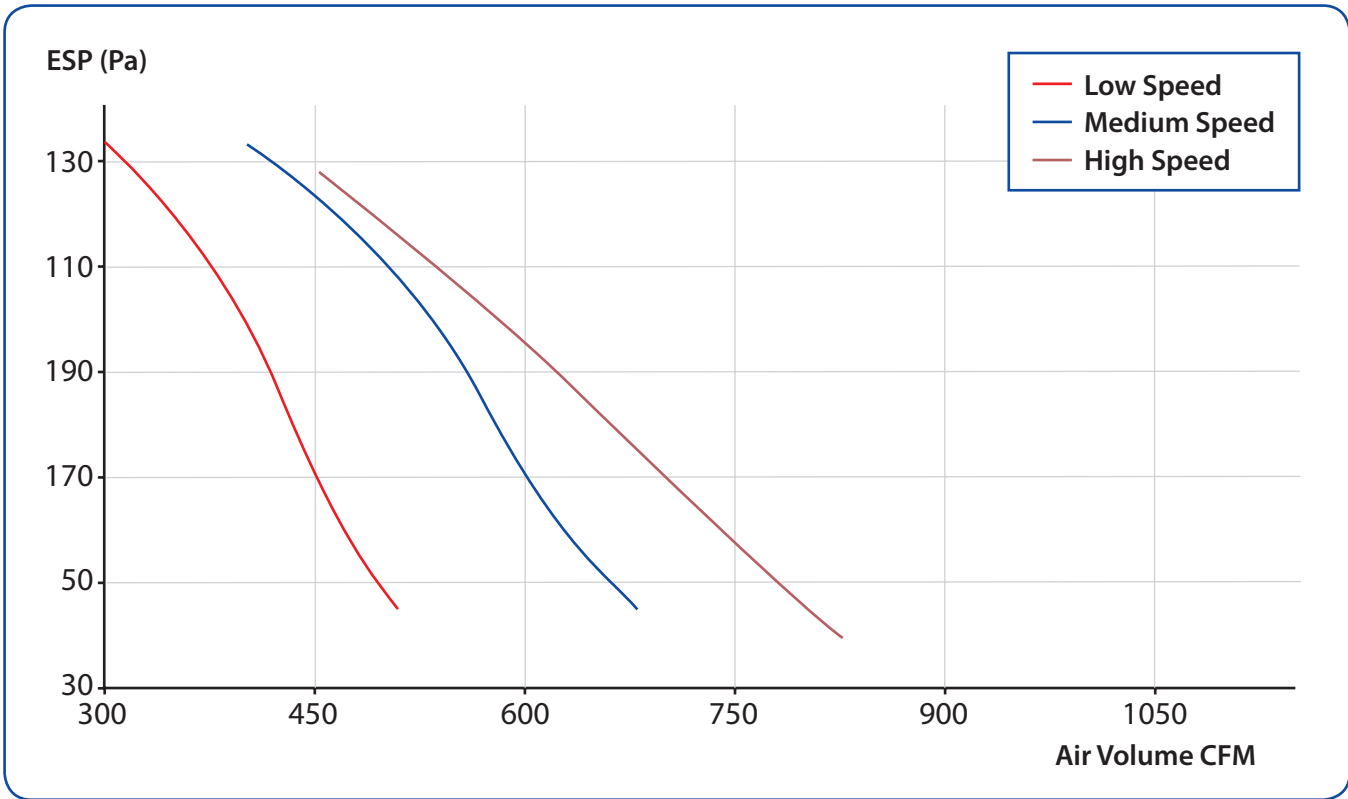


Air Vol. vs ESP for Model No. FWHCD4-200

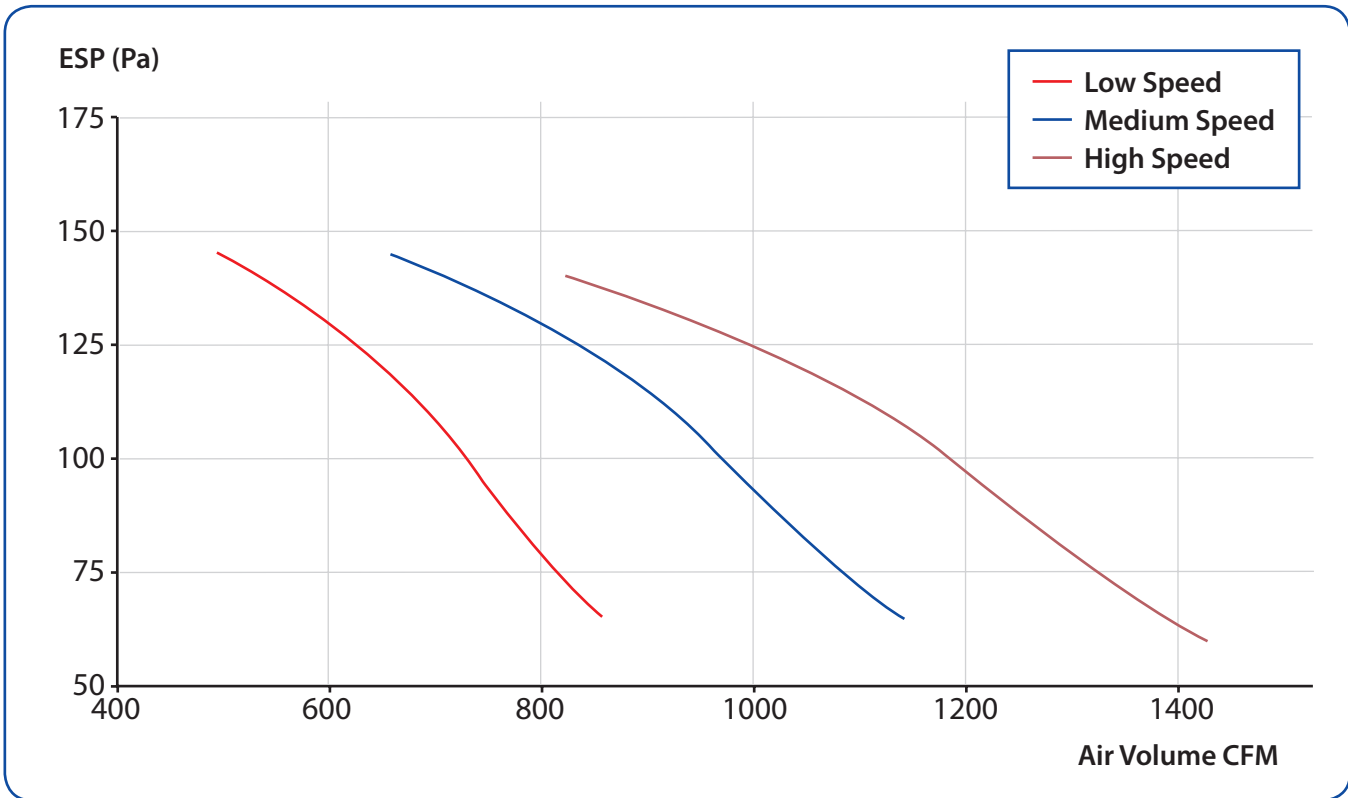


Air Vol. vs ESP for Model No. FWHCD4-300

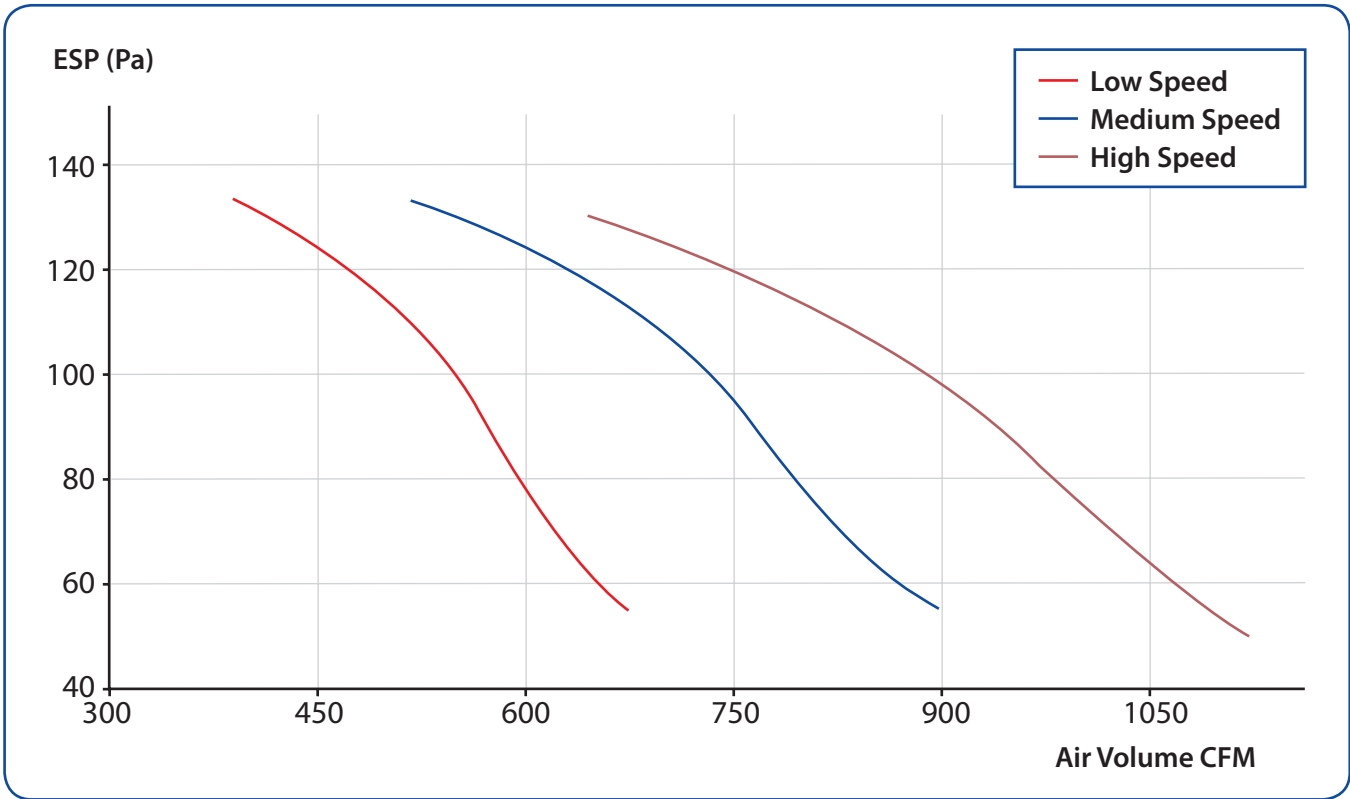
MODEL - FWHCD6



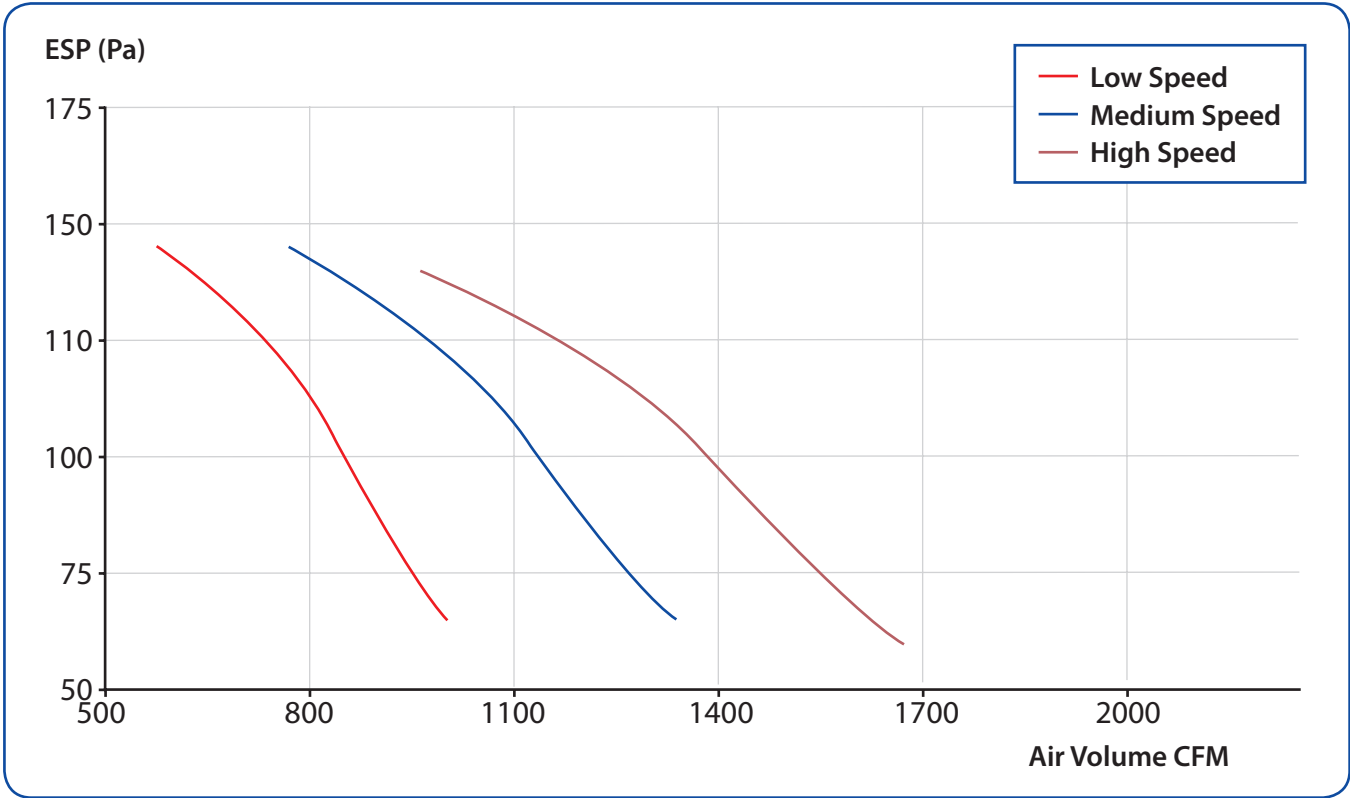
Air Vol. vs ESP for Model No. FWHCD6-80



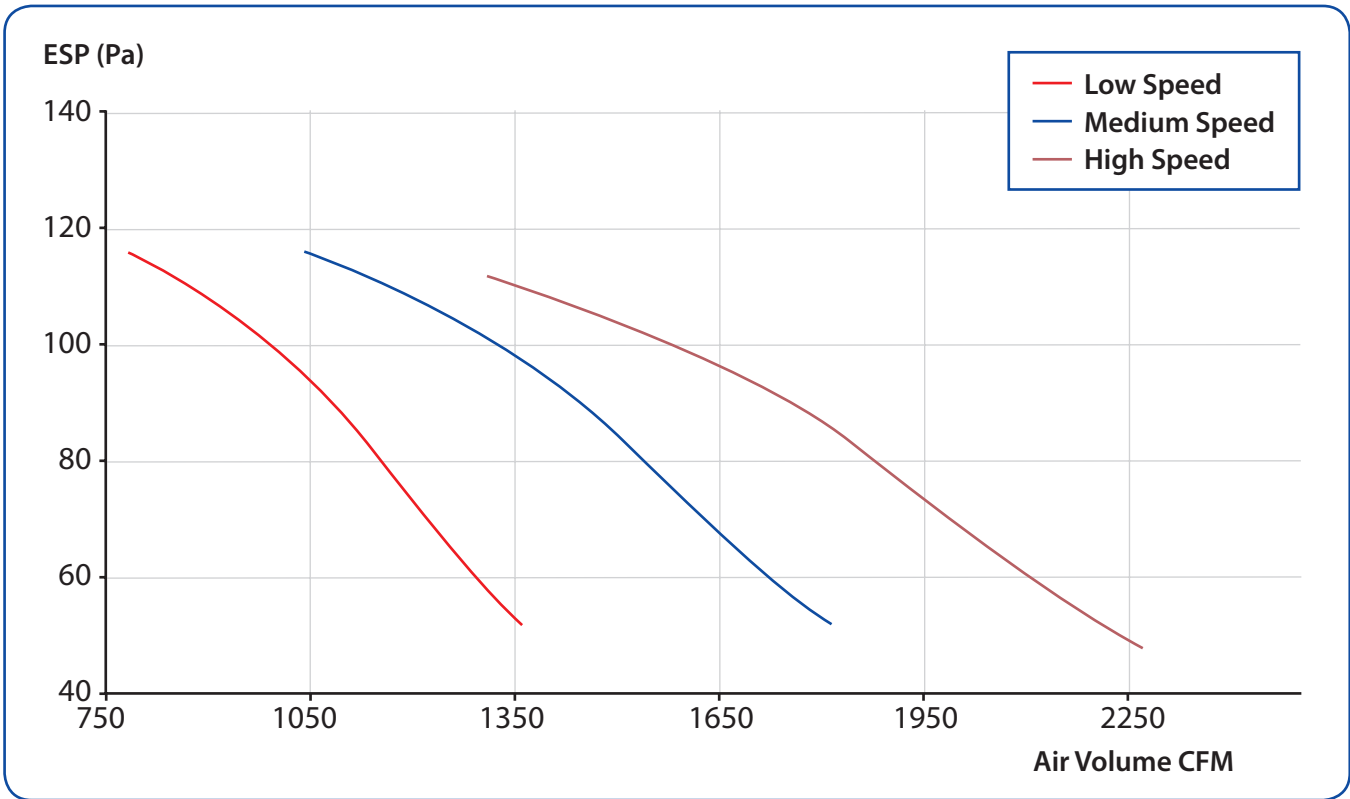
Air Vol. vs ESP for Model No. FWHCD6-120



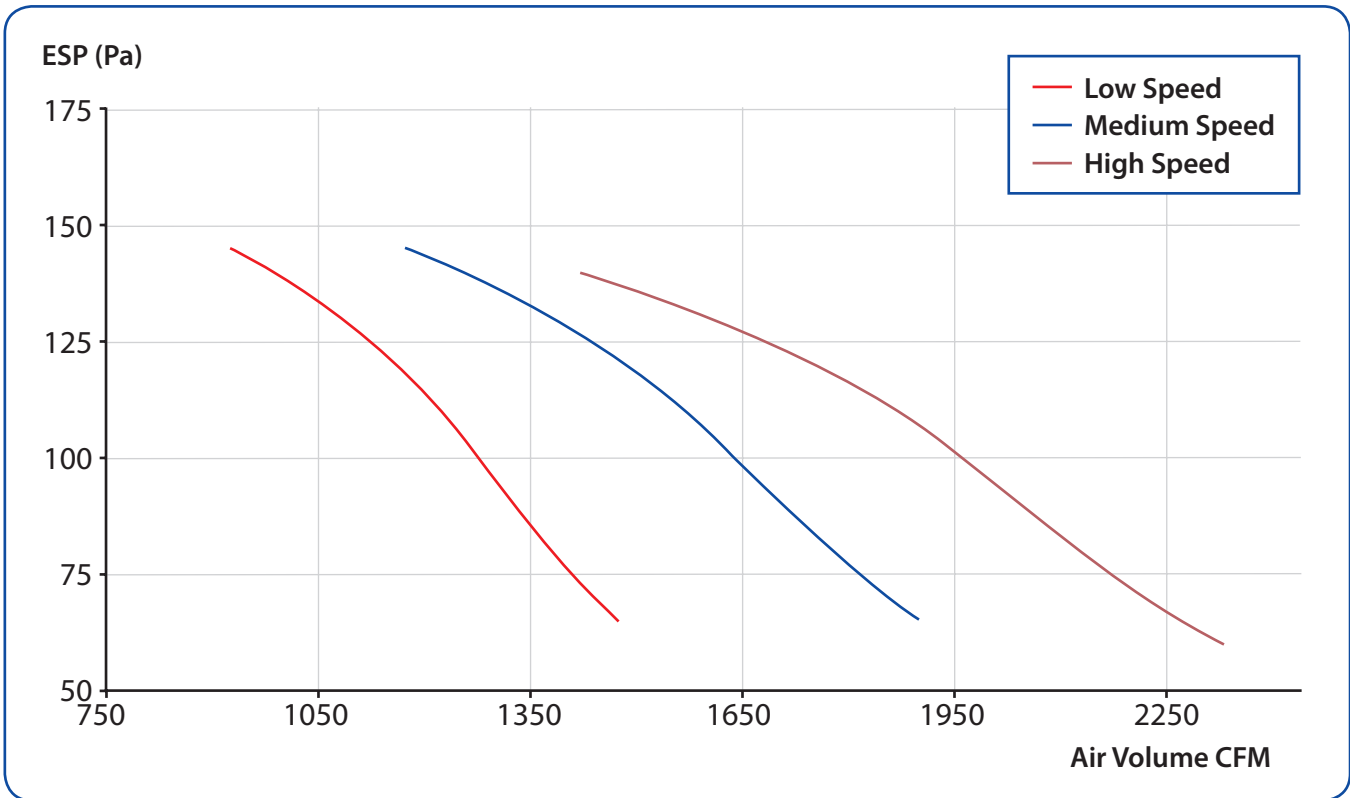
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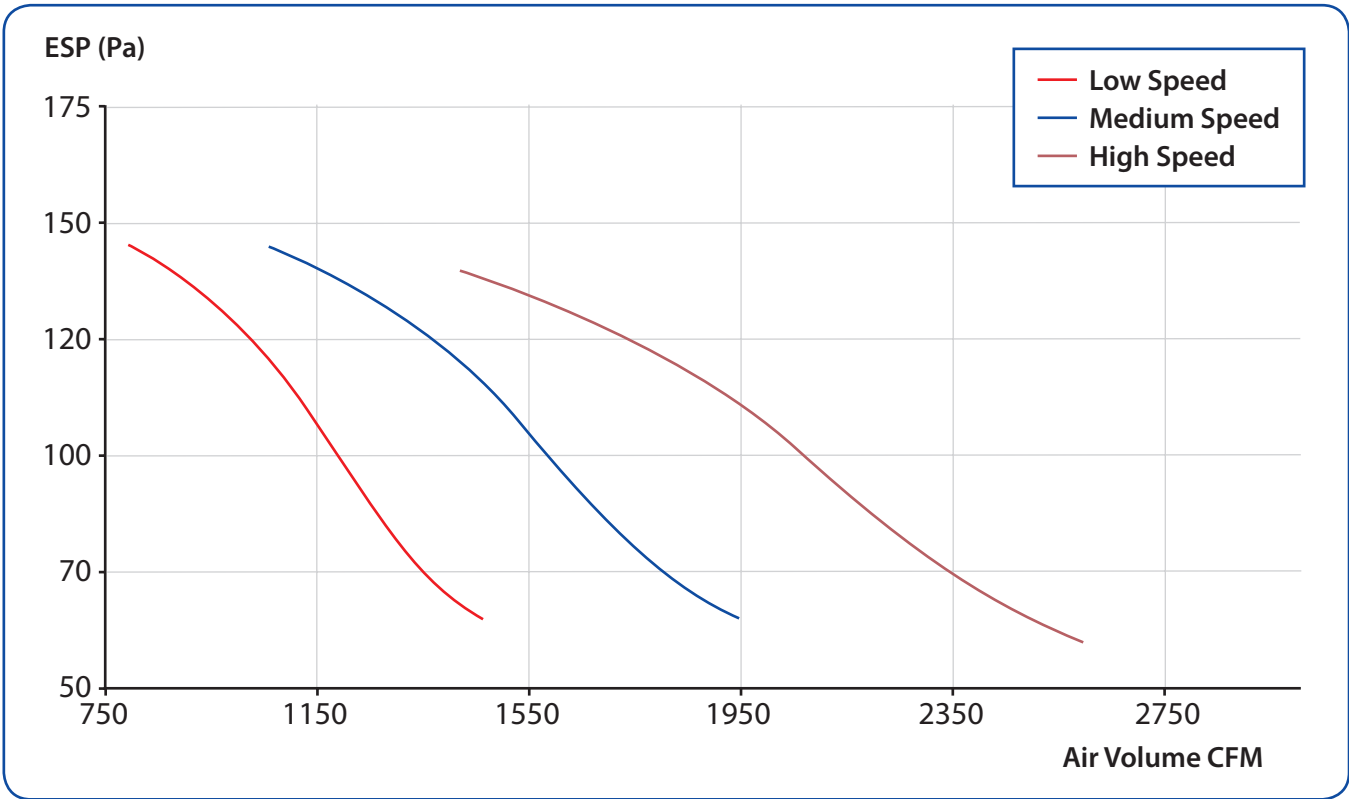
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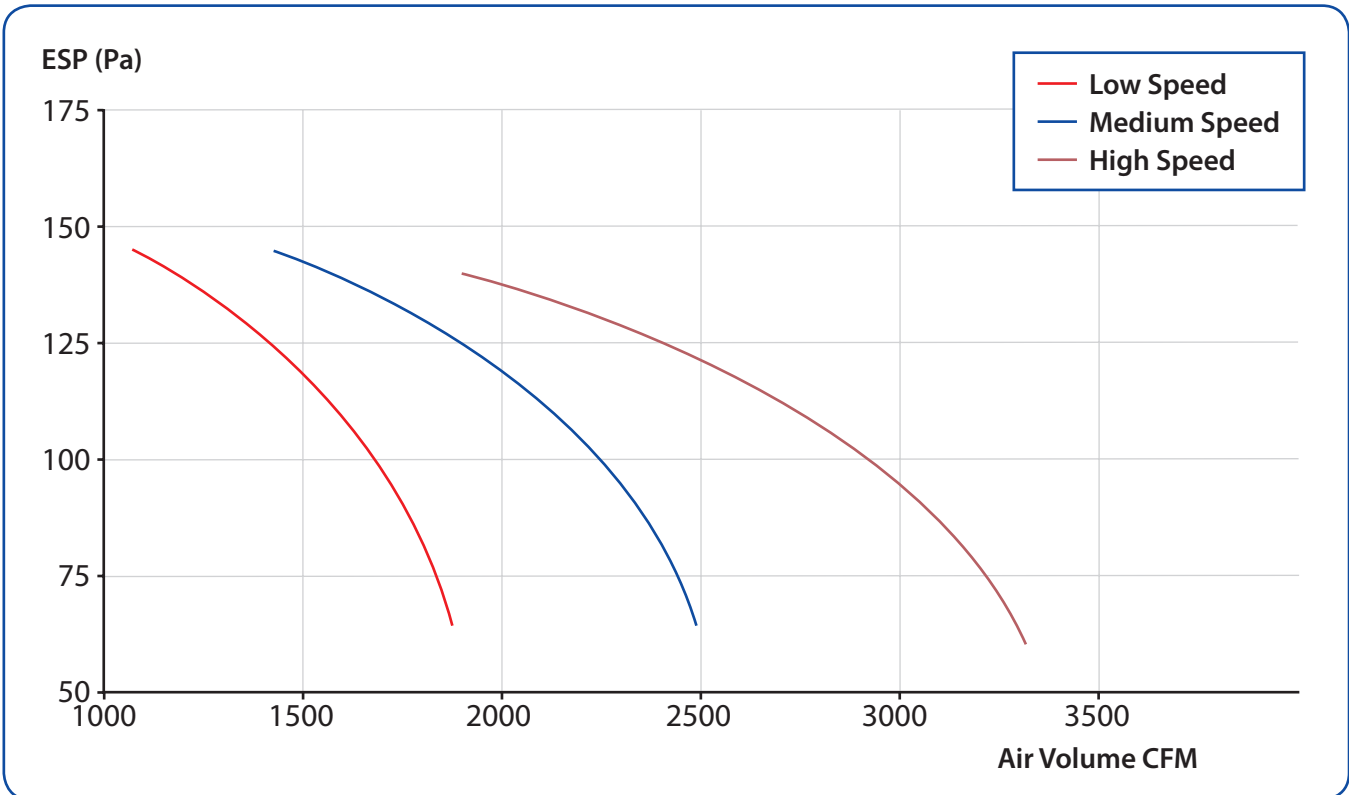
Air Vol. vs ESP for Model No. FWHCD6-180



Air Vol. vs ESP for Model No. FWHCD6-240

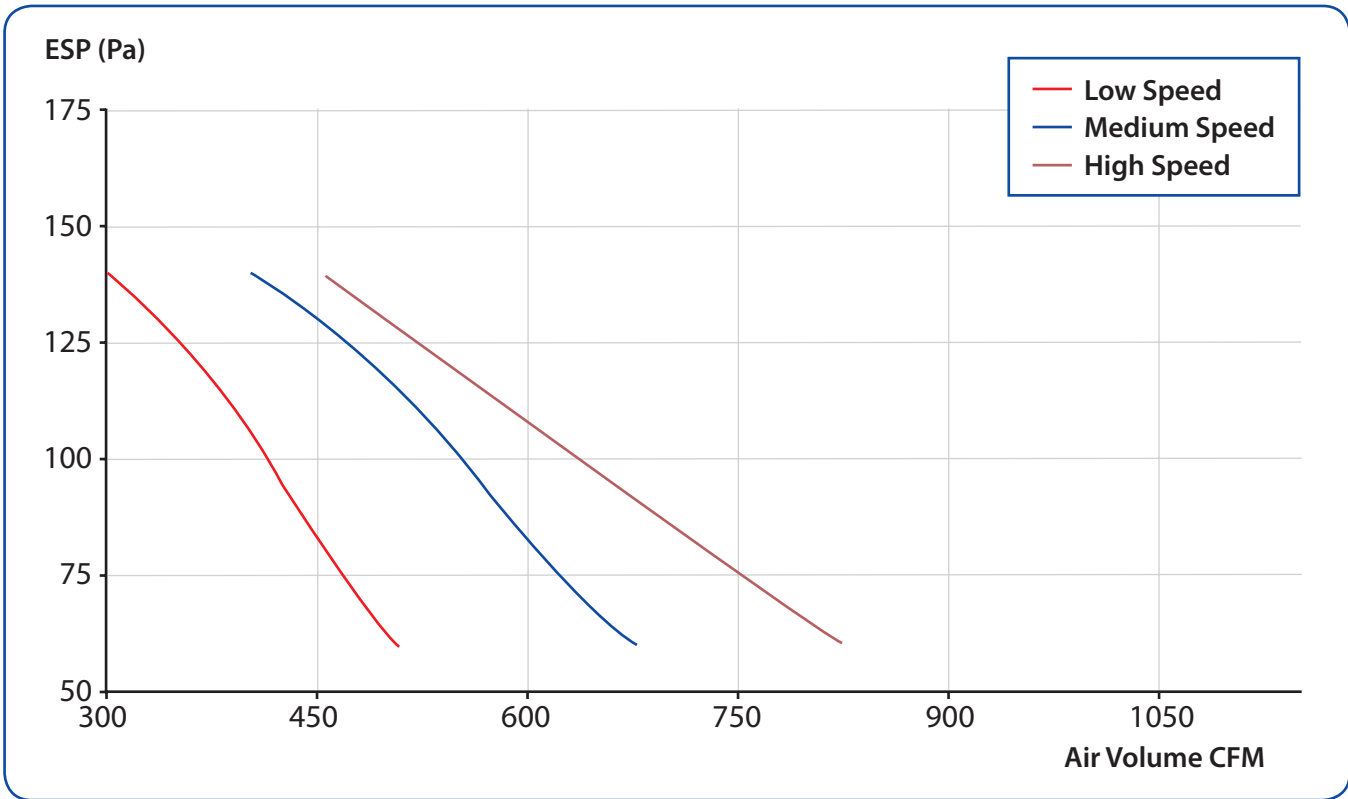


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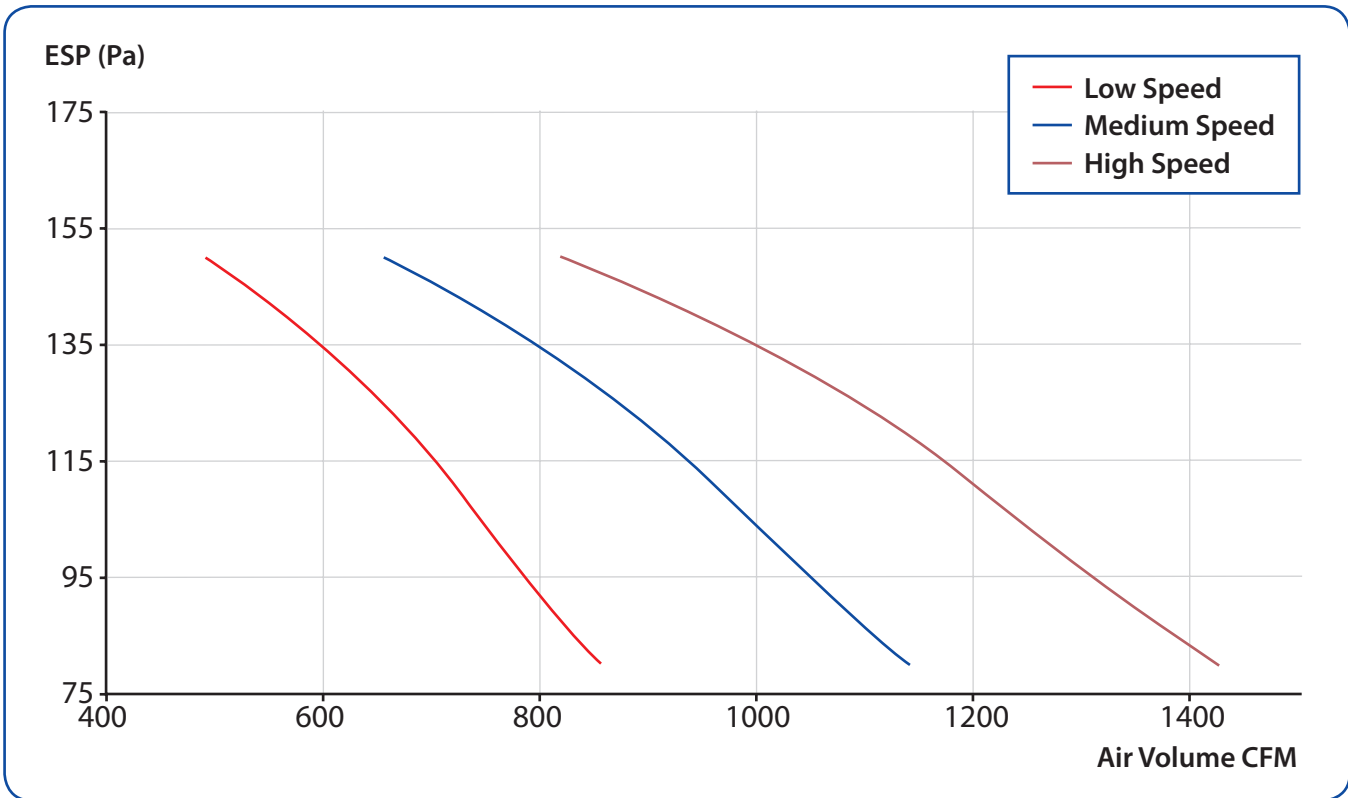


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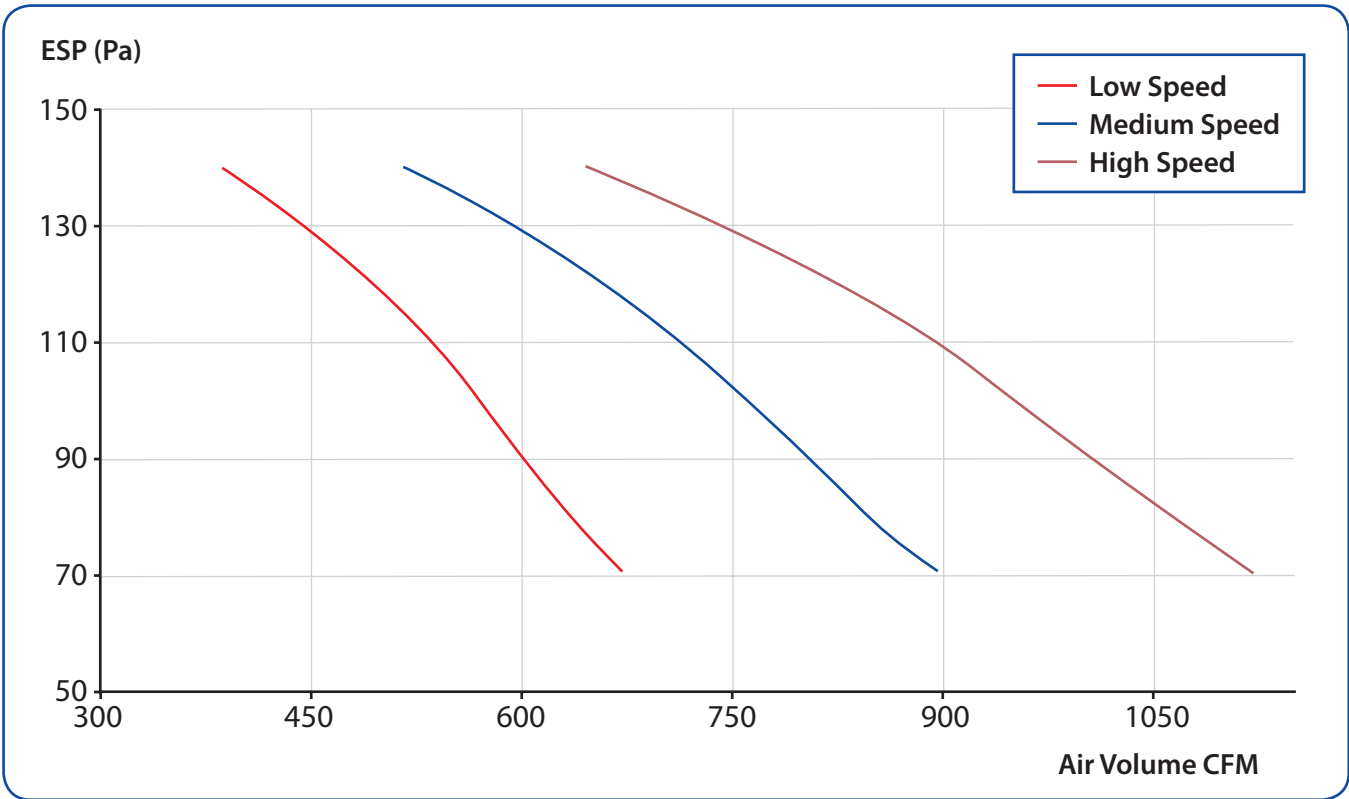
MODEL - FWHCD31



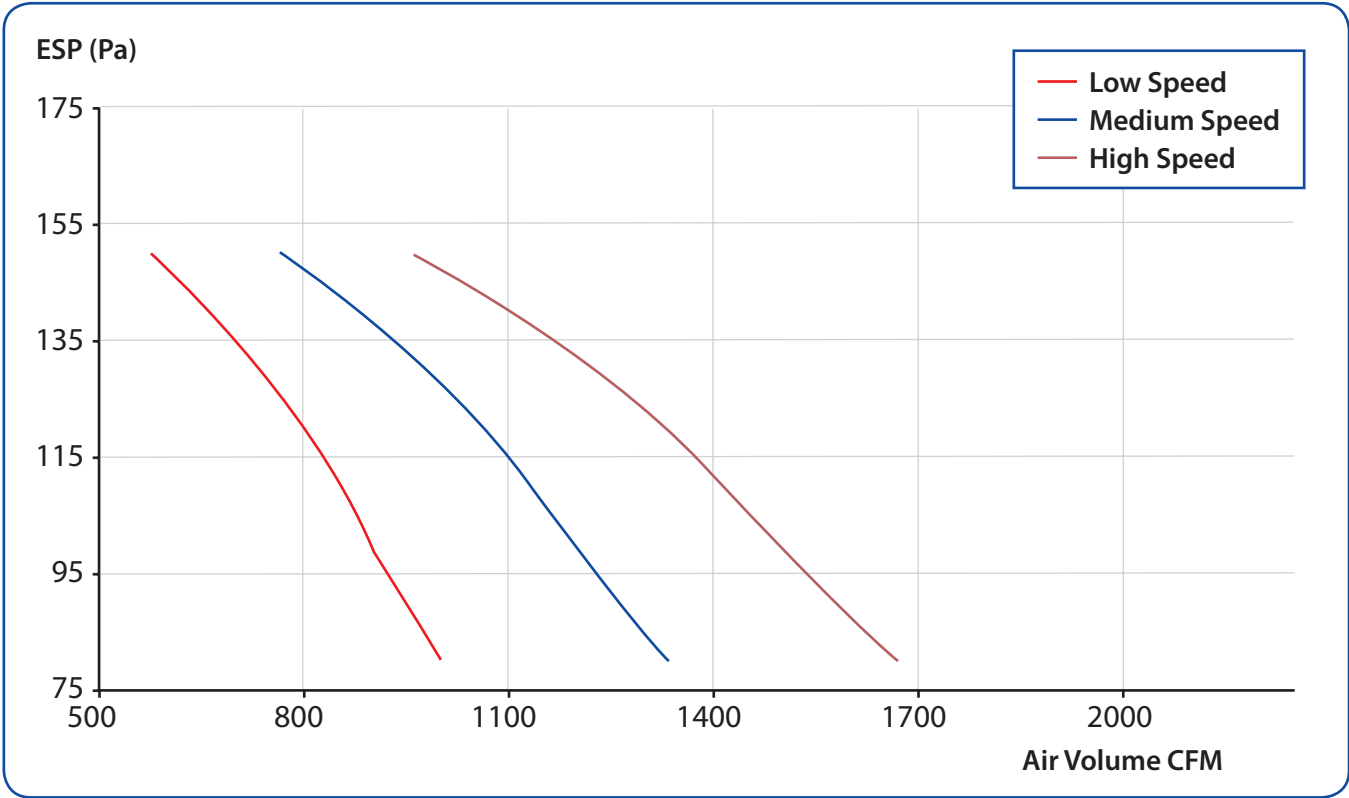
Air Vol. vs ESP for Model No. FWHCD31-80



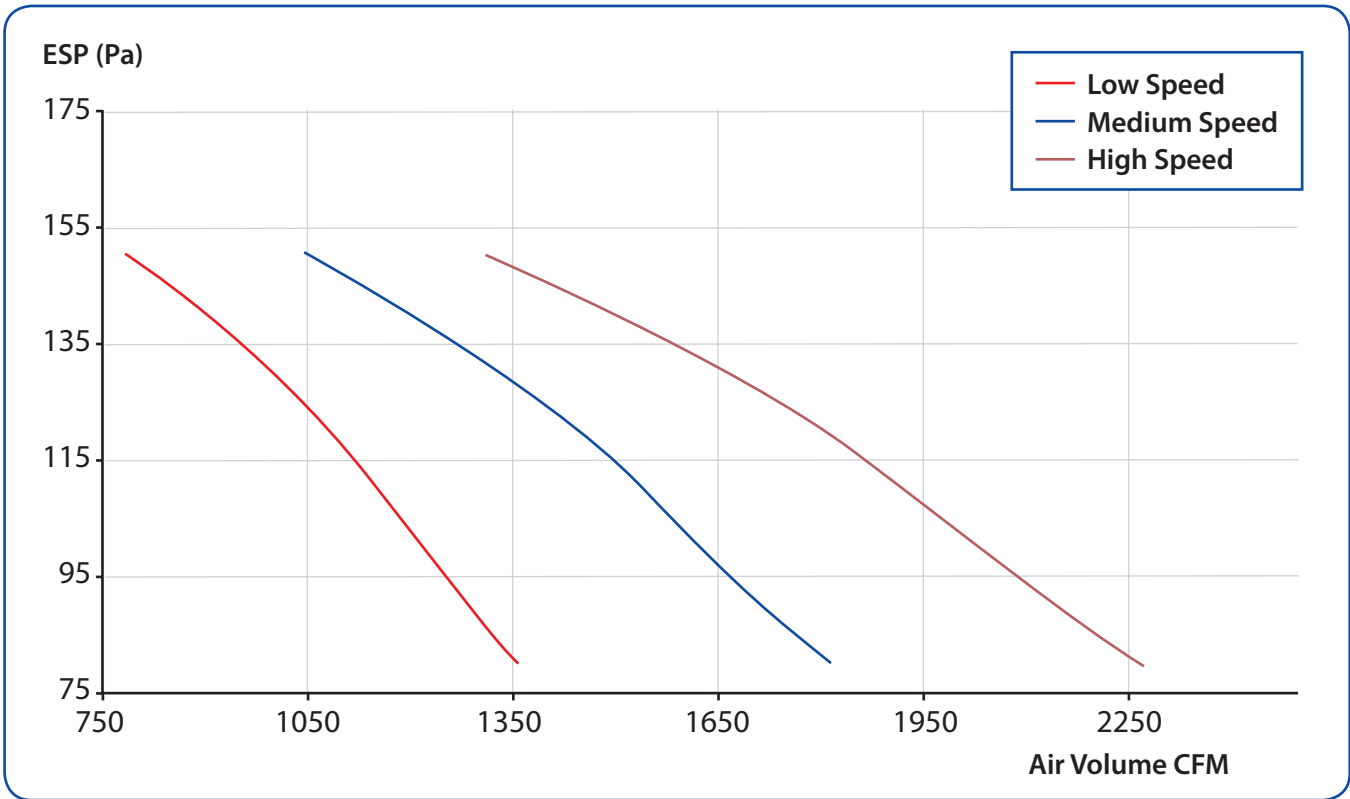
Air Vol. vs ESP for Model No. FWHCD31-120



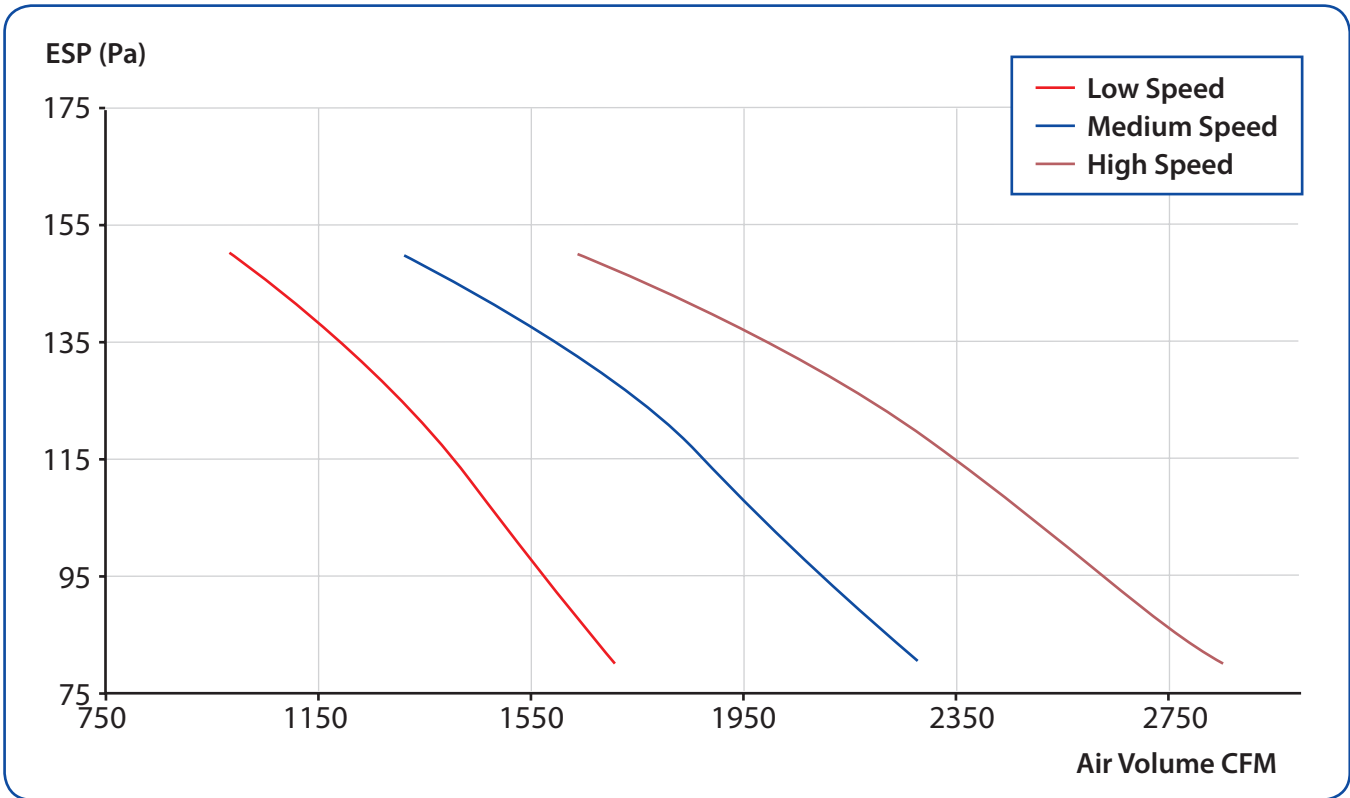
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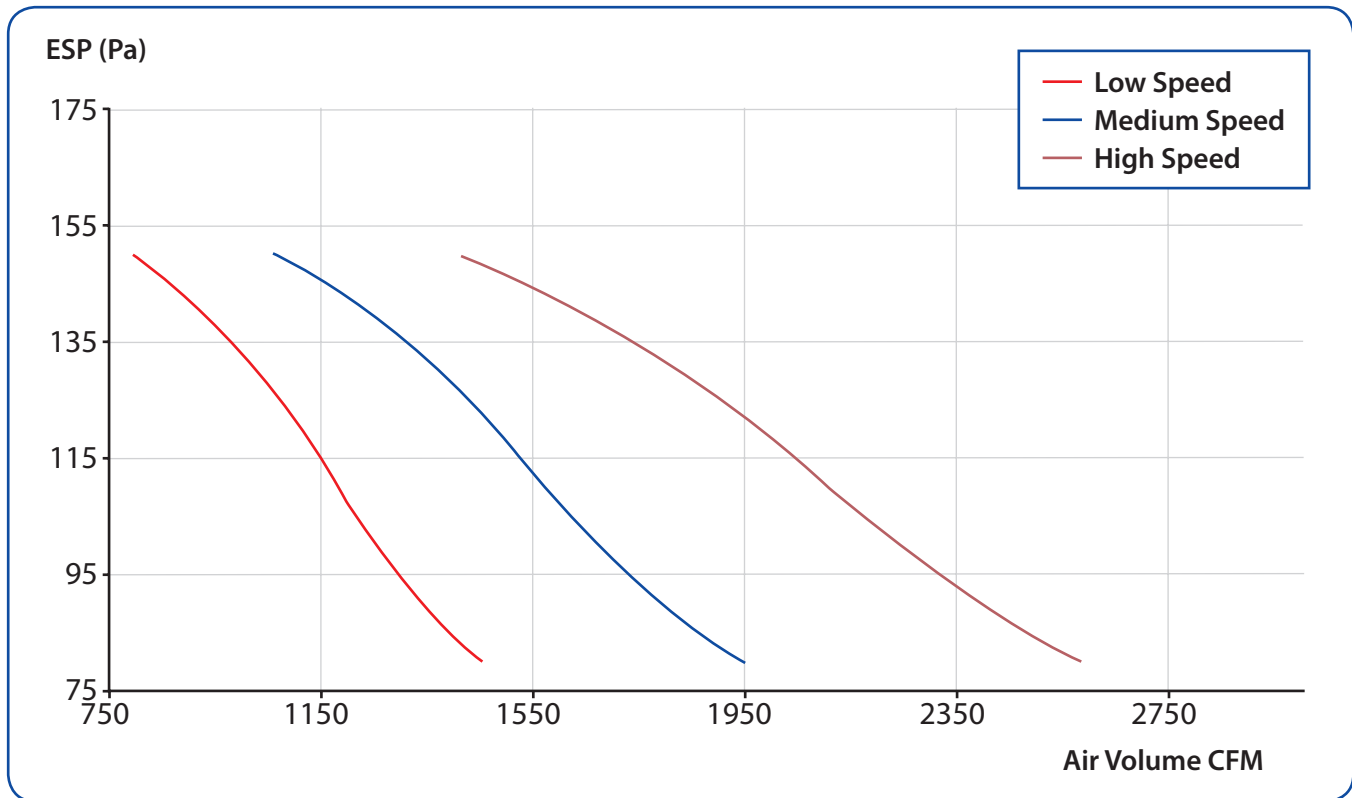
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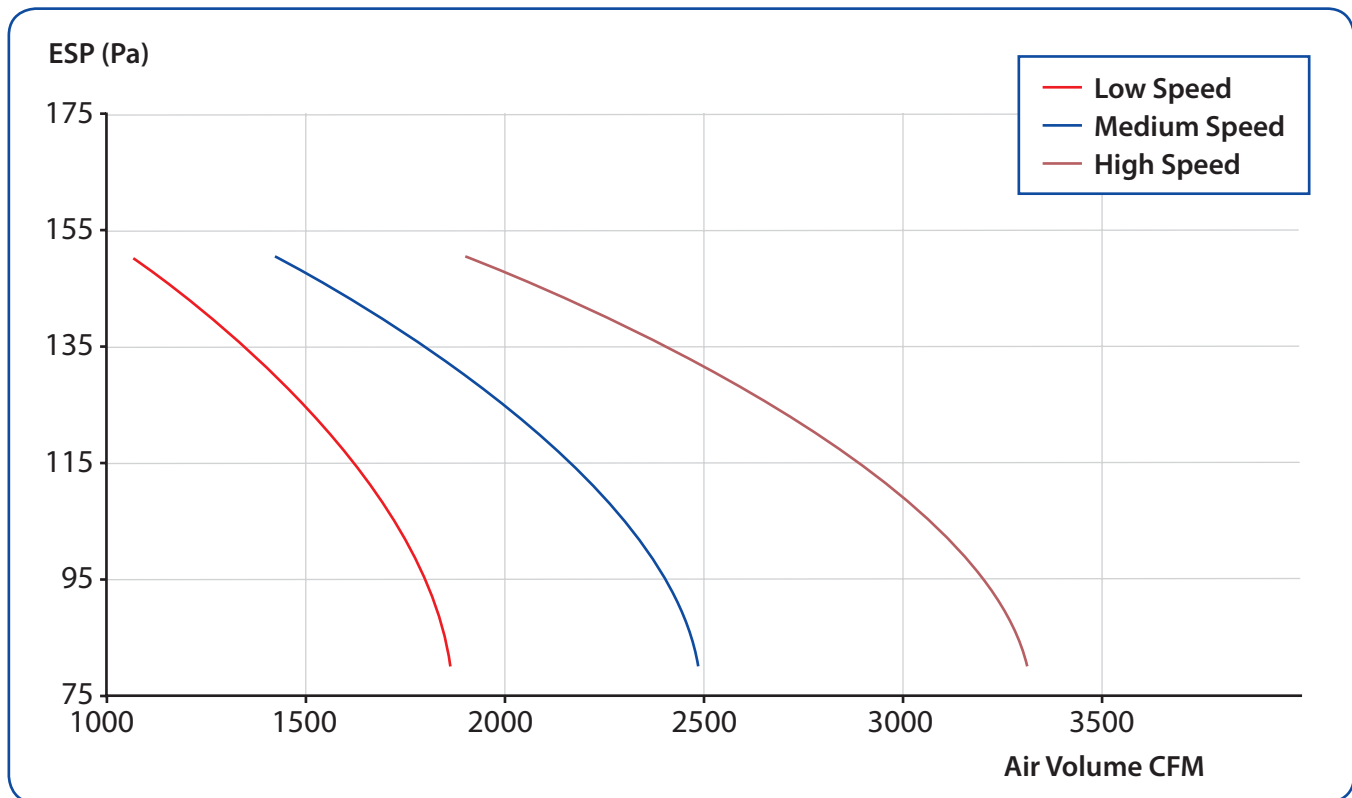
Air Vol. vs ESP for Model No. FWHCD31-180



Air Vol. vs ESP for Model No. FWHCD31-240

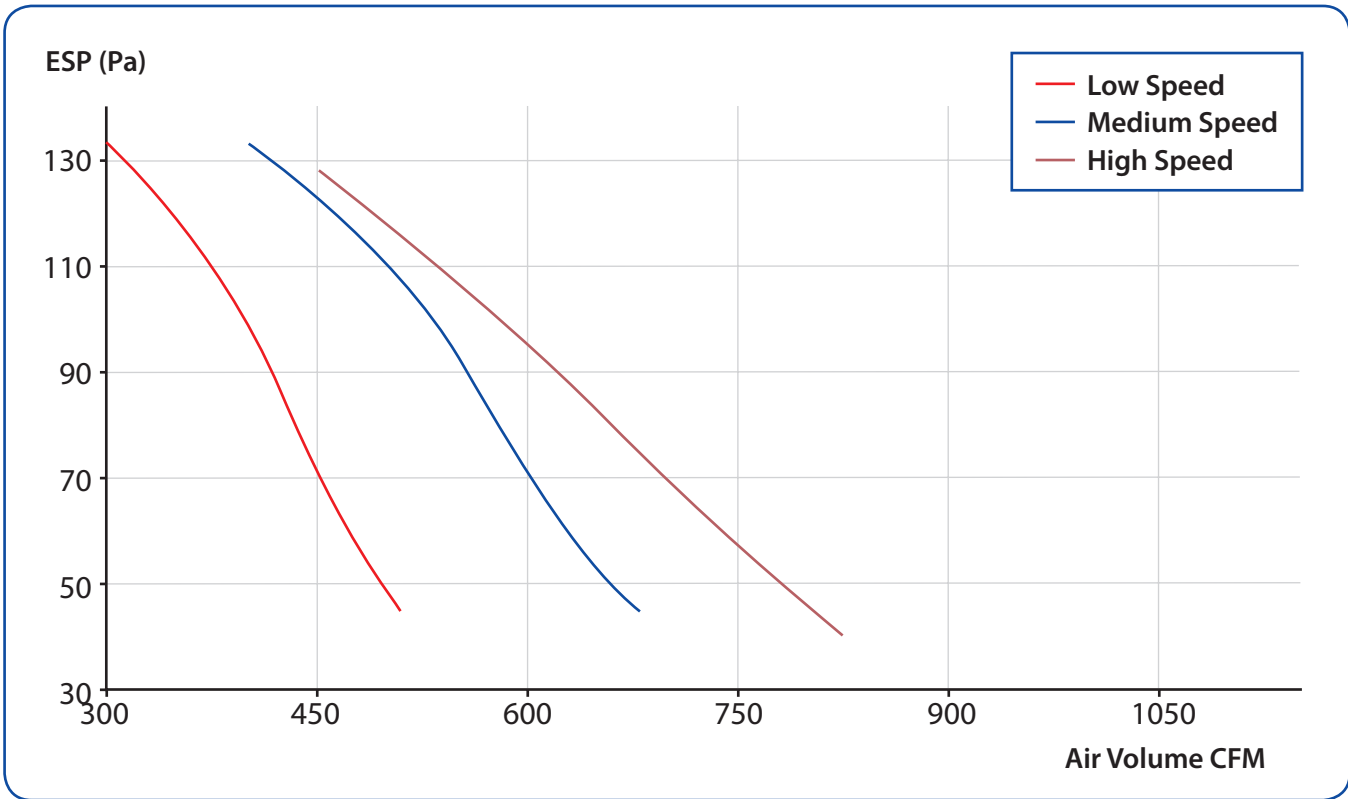


Air Vol. vs ESP for Model No. FWHCD31-200

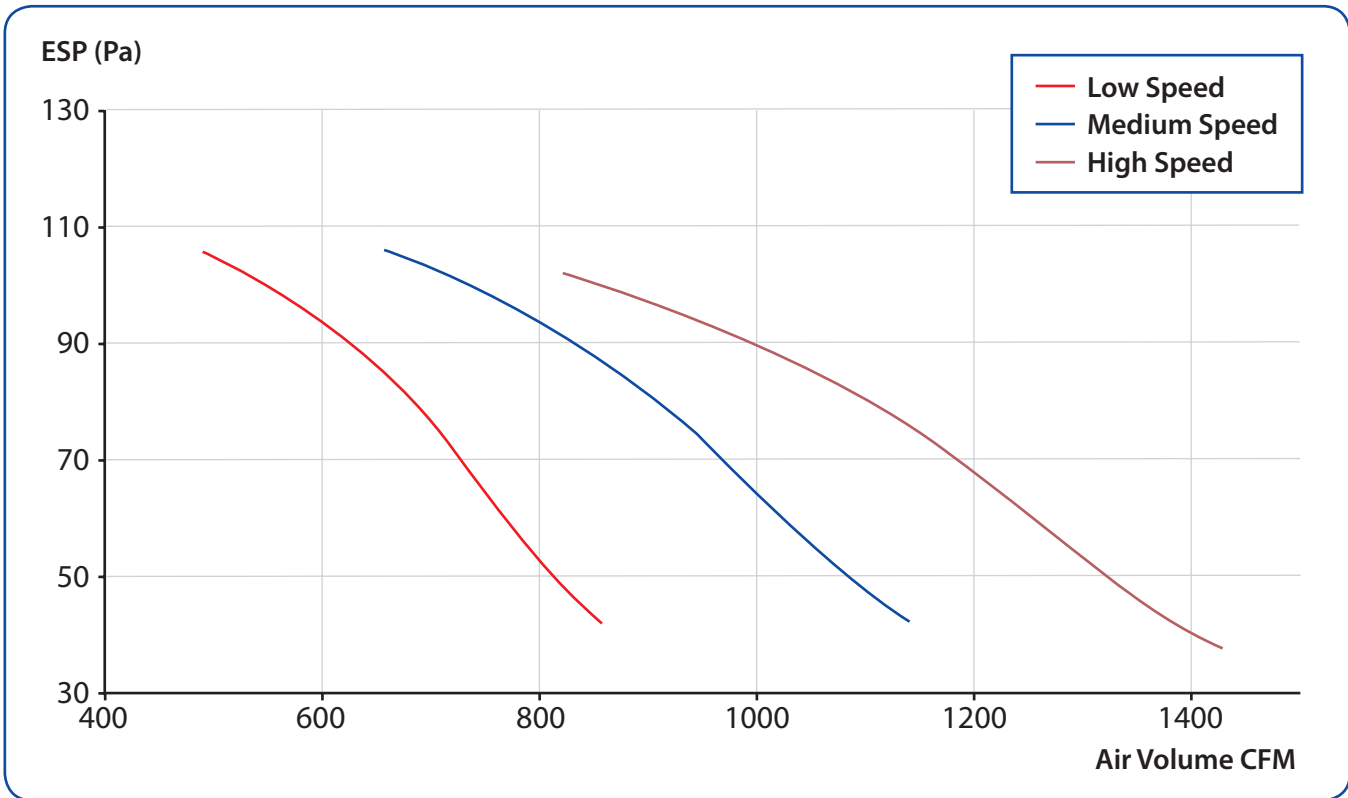


Air Vol. vs ESP for Model No. FWHCD31-300

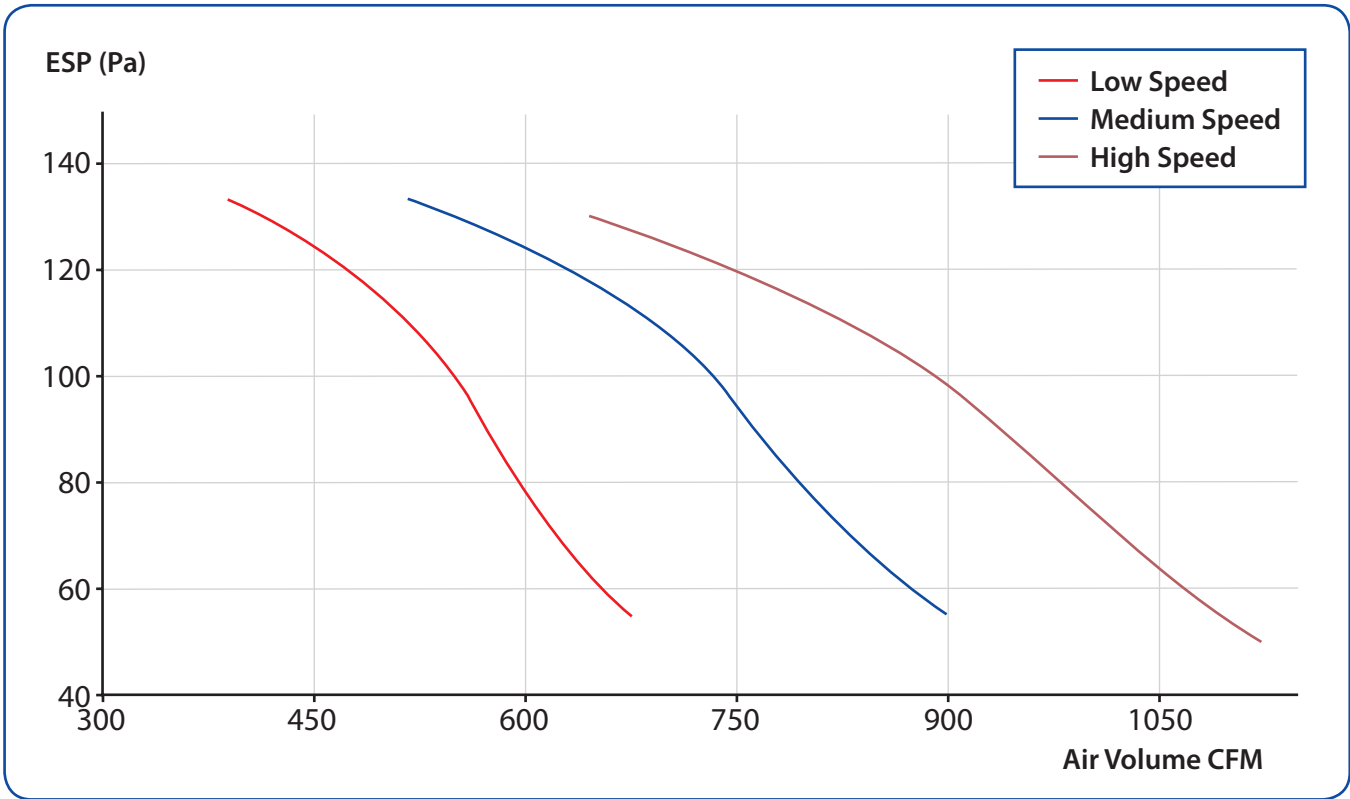
MODEL - FWHCD42



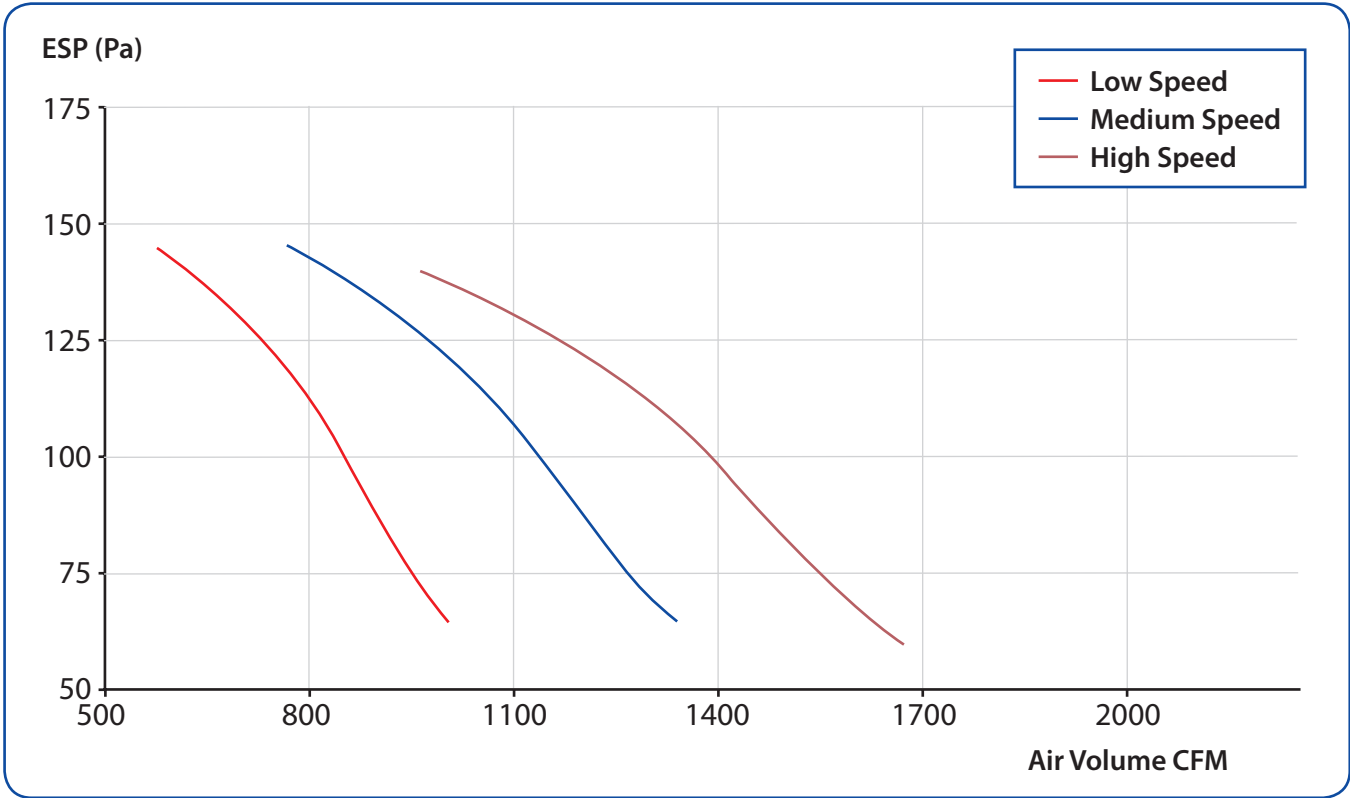
Air Vol. vs ESP for Model No. FWHCD42-80



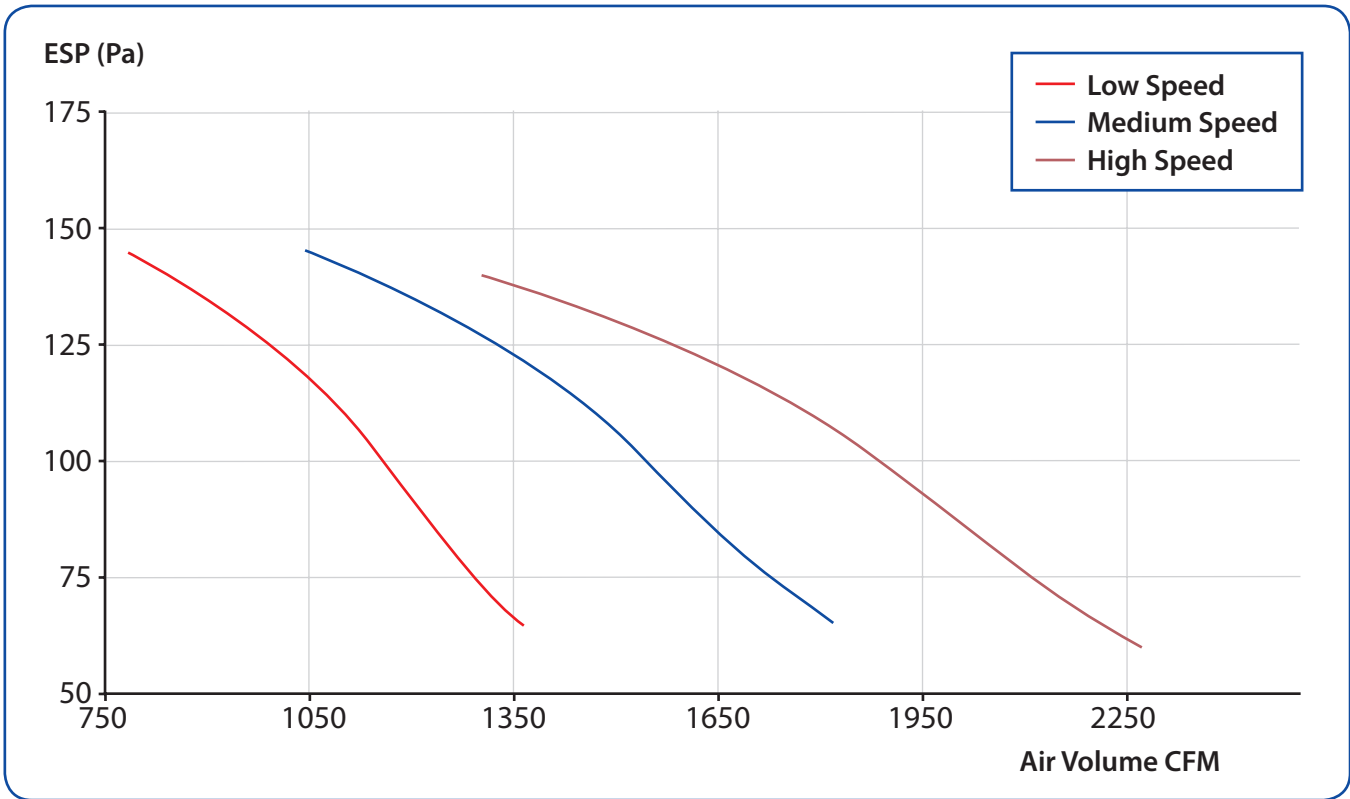
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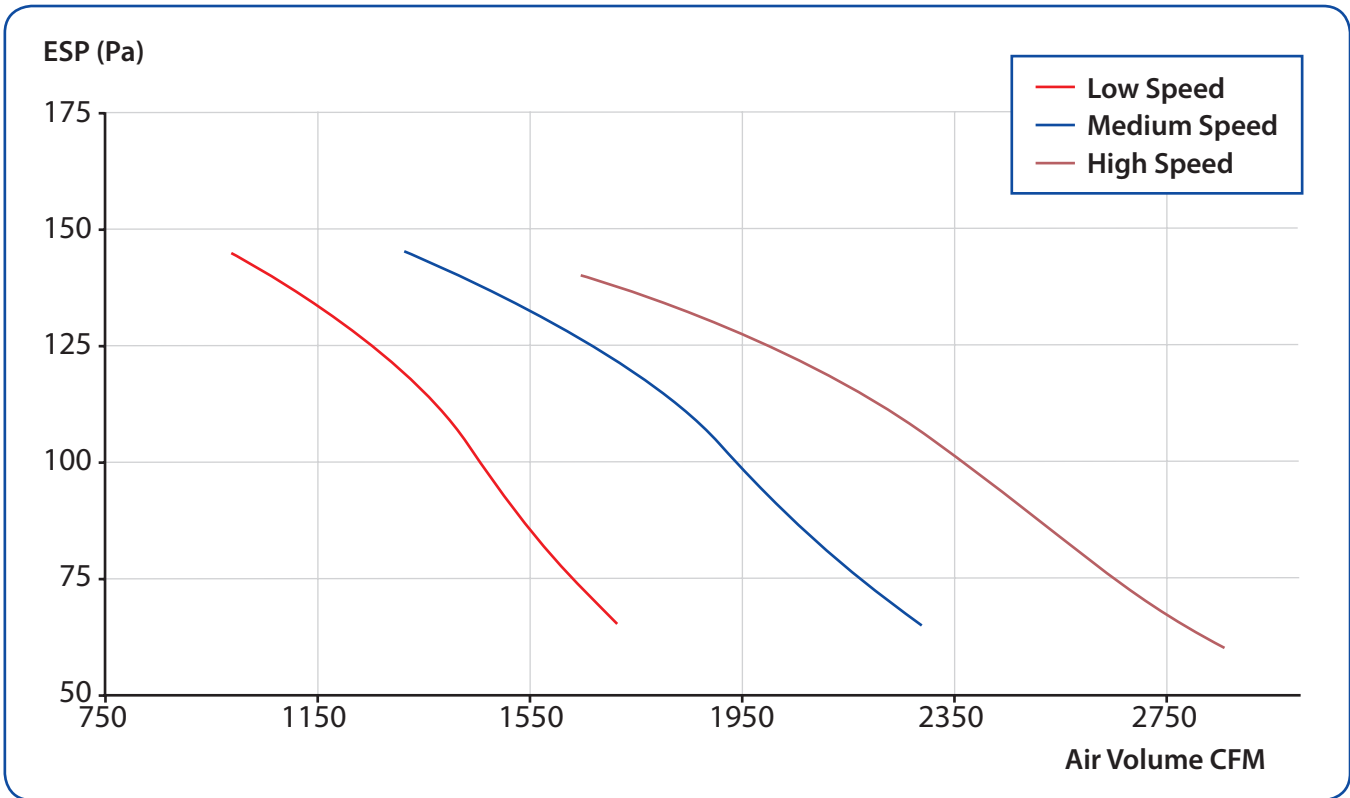
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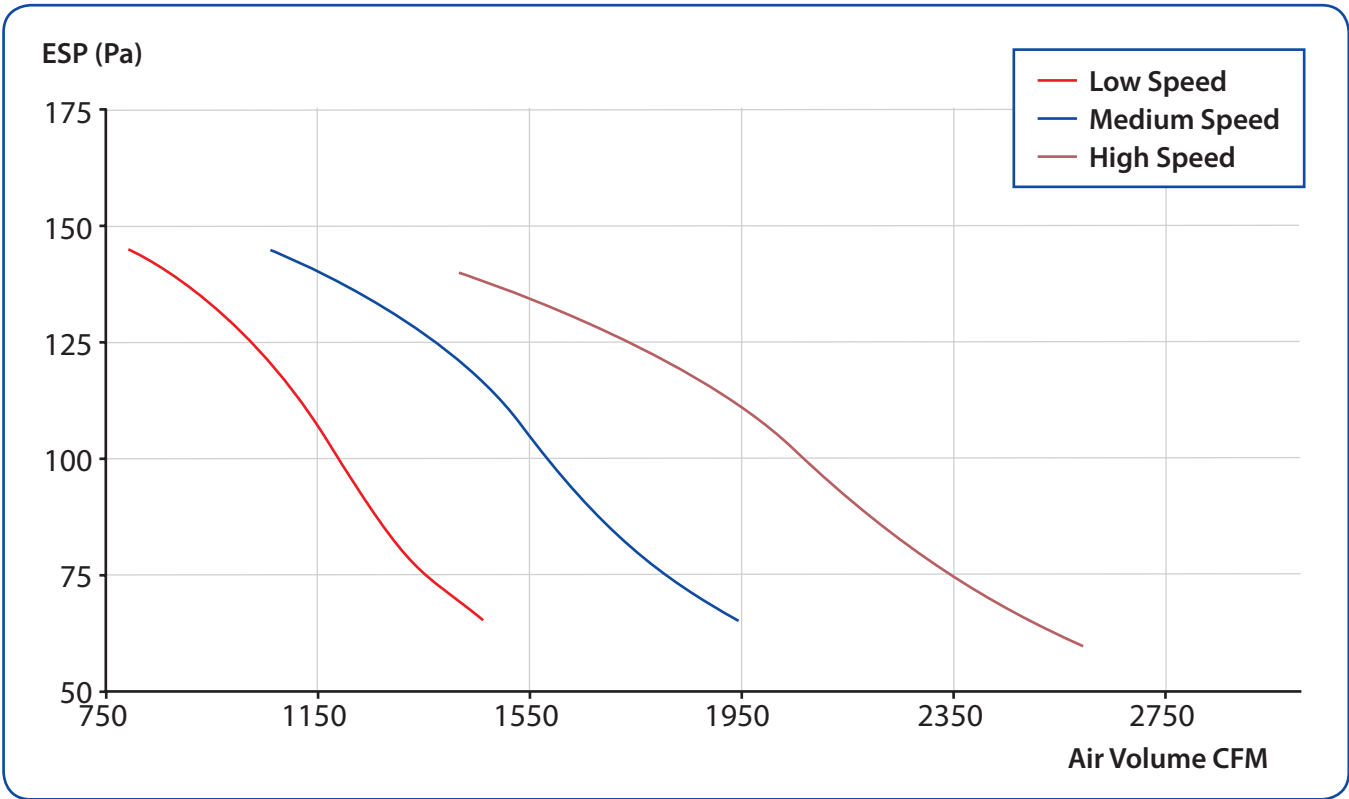
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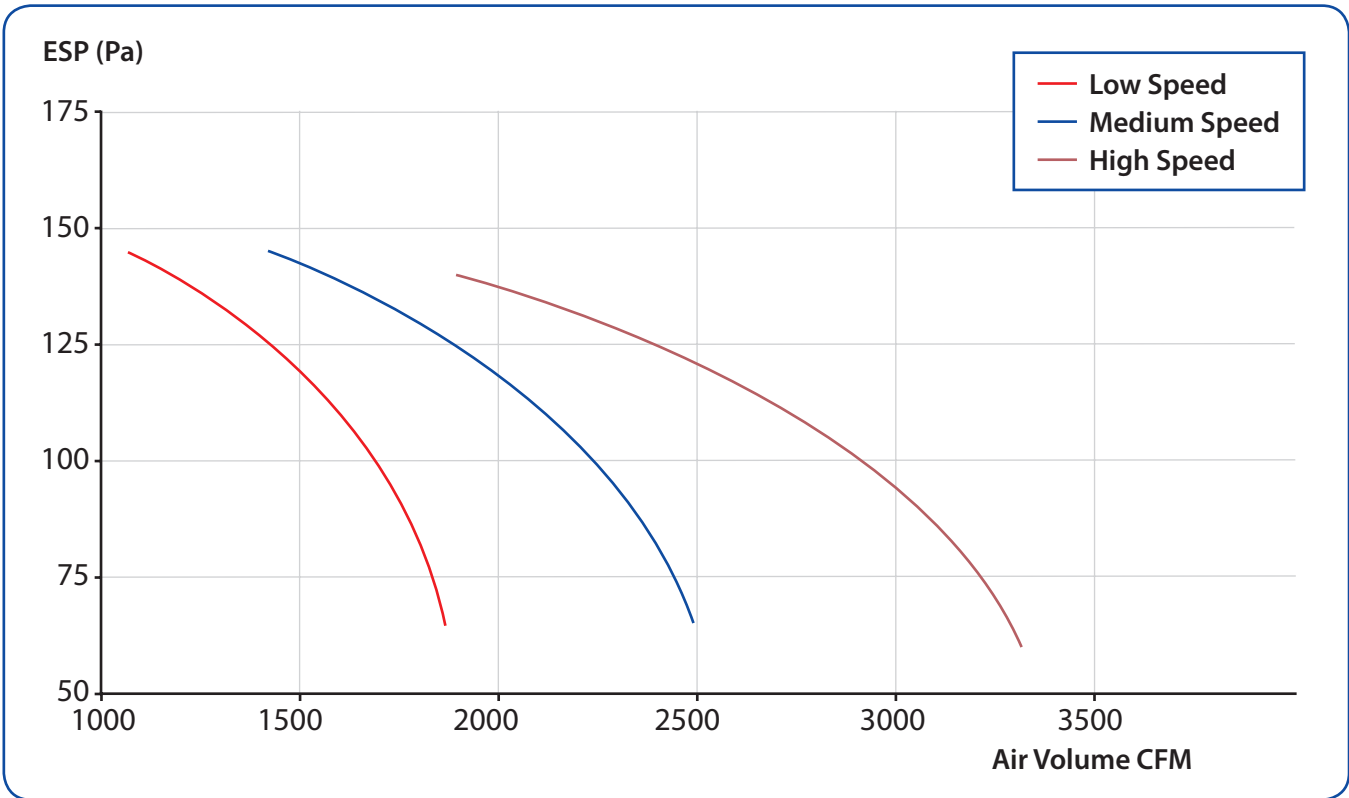
Air Vol. vs ESP for Model No. FWHCD42-180



Air Vol. vs ESP for Model No. FWHCD42-240



Air Vol. vs ESP for Model No. FWHCD42-200



Air Vol. vs ESP for Model No. FWHCD42-300

General Data - FWLUC/D (Fan Coil Unit Water Cooled Low Static Universal Concealed/Decorative)

	Model No	FWLUC/D-20	FWLUC/D-30	FWLUC/D-40	FWLUC/D-50	FWLUC/D-60	FWLUC/D-80	FWLUC/D-100	FWLUC/D-120	FWLUC/D-140
	Nominal Air Volume (cfm)	200	300	400	500	600	800	1000	1200	1400
Coil	Copper tube	3/8"(9.52mm) OD seamless copper tube								
	Fins	Hi-efficiency wavy corrugated aluminium blue fins								
	Fins per Inch (fpi)	12	12	12	12	12	12	12	12	12
	Coil Length (mm)	445	520	635	735	835	1065	1285	1495	1600
	Coil Height (mm)	200	200	200	200	200	200	200	200	200
Fan	Fan type	Double inlet centrifugal forward curve, steel wheel, direct driven								
	Quantity (No)	1	2	2	2	2	3	4	4	4
AC Motor	Voltage (V)	220-240V /1P h/50-60H Z,110-127V /1P h/50H Z								
	Motor Speed	3 speed								
	Quantity (No)	1	1	1	1	1	2	2	2	2
	Max Power Input (W)	42	59	73	94	123	143	183	258	278
EC Motor	Voltage (V)	220-240V /1P h/50-60H Z,110-127V /1P h/50H Z								
	Quantity (No)	1	1	1	1	1	2	2	2	2
	Max Power Input (W)	17	29	38	50	106	94	117	216	218
Fan sound level @ 1 mtr	H (dBA)	34	37	39	42	44	44	46	47	49
	M (dBA)	28	29	33	35	38	39	41	42	45
	L (dBA)	23	24	27	30	30	32	32	32	34
Water pipe	Cooling coil	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
	Heating coil (4 pipes unit)	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
Drain pipe		3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP
Dimension FWLUC	Length (mm)	705	780	895	995	1095	1325	1545	1755	2100
	Width (mm)	600	600	600	600	600	600	600	600	600
	Height (mm)	260	260	260	260	260	260	260	260	260
Dimension FWLUD	Length (mm)	908	958	1108	1258	1308	1658	1808	1958	2108
	Width (mm)	605	605	605	605	605	605	605	605	605
	Height (mm)	270	260	260	260	260	260	260	260	260
Weight FWLUC	Net Weight (kg)	18	19	21	23	24	34	37	45	48
Weight FWLUD	Net Weight (kg)	20	21	23	25	26	37	40	49	49

Performance Data - FWLUC/D

The performance data lists regular EU standard, ARI 440 standard and District Cooling	
Standard rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°C WB	Heating: Entering air temperature: +20°C DB
Water inlet/outlet: +7/12°C	Water inlet temperature: +50°C
ESP: 50Pa	Water flow rate as for the cooling conditions
	ESP: 50Pa

3 Rows, 2 Pipes

	Model No	FWLUC/D3-20	FWLUC/D3-30	FWLUC/D3-40	FWLUC/D3-50	FWLUC/D3-60
Air flow	H (cfm)	242	300	400	517	587
	M (cfm)	184	255	301	403	424
	L (cfm)	135	200	224	253	283
Total Cooling Capacity	H (kW)	1.98	2.55	3.51	4.56	5.34
	M (kW)	1.64	2.28	2.89	3.84	4.25
	L (kW)	1.33	1.93	2.34	2.75	3.16
Sensible Cooling Capacity	H (kW)	1.52	1.92	2.58	3.31	3.83
	M (kW)	1.24	1.69	2.08	2.75	2.99
	L (kW)	0.97	1.41	1.66	1.92	2.18
Heating Capacity	H (kW)	2.46	3.10	4.16	5.28	6.06
	M (kW)	2.04	2.77	3.39	4.41	4.79
	L (kW)	1.61	2.31	2.71	3.12	3.54
Water Flow Rate	H (L/S)	0.09	0.12	0.17	0.22	0.25
	M (L/S)	0.08	0.11	0.14	0.18	0.20
	L (L/S)	0.06	0.09	0.11	0.13	0.15
Water Pressure Drop	H (kPa)	2.58	4.21	7.86	12.80	17.92
	M (kPa)	2.03	3.64	6.07	10.21	13.24
	L (kPa)	1.53	2.93	4.61	6.59	8.99

4 Rows, 2 Pipes

	Model No	FWLUC/D4-20	FWLUC/D4-30	FWLUC/D4-40	FWLUC/D4-50	FWLUC/D4-60
Air flow	H (cfm)	235	291	388	501	570
	M (cfm)	178	247	292	391	411
	L (cfm)	131	194	218	245	274
Total Cooling Capacity	H (kW)	2.44	3.12	4.27	5.52	6.44
	M (kW)	2.02	2.78	3.49	4.63	5.09
	L (kW)	1.61	2.34	2.80	3.27	3.74
Sensible Cooling Capacity	H (kW)	1.78	2.24	3.02	3.88	4.47
	M (kW)	1.43	1.97	2.41	3.19	3.46
	L (kW)	1.11	1.62	1.90	2.19	2.48
Heating Capacity	H (kW)	2.86	3.56	4.72	6.02	6.93
	M (kW)	2.32	3.13	3.83	5.00	5.40
	L (kW)	1.82	2.60	3.02	3.48	3.92
Water Flow Rate	H (L/S)	0.12	0.15	0.20	0.26	0.31
	M (L/S)	0.10	0.13	0.17	0.22	0.24
	L (L/S)	0.08	0.11	0.13	0.16	0.18
Water Pressure Drop	H (kPa)	2.56	4.01	7.13	11.21	15.31
	M (kPa)	2.04	3.50	5.60	9.08	11.55
	L (kPa)	1.56	2.84	4.31	5.99	7.99

3 Rows, 2 Pipes

	Model No	FWLUC/D3-80	FWLUC/D3-100	FWLUC/D3-120	FWLUC/D3-140
Air flow	H (cfm)	758	1013	1248	1407
	M (cfm)	524	670	1012	1112
	L (cfm)	417	479	582	677
Total Cooling Capacity	H (kW)	7.21	9.64	11.93	13.37
	M (kW)	5.54	7.16	10.28	11.31
	L (kW)	4.68	5.58	6.82	7.84
Sensible Cooling Capacity	H (kW)	5.06	6.72	8.26	9.24
	M (kW)	3.83	4.91	7.06	7.75
	L (kW)	3.20	3.77	4.59	5.27
Heating Capacity	H (kW)	7.95	10.47	12.79	14.26
	M (kW)	6.09	7.76	11.02	12.06
	L (kW)	5.12	6.04	7.31	8.35
Water Flow Rate	H (L/S)	0.34	0.46	0.57	0.64
	M (L/S)	0.26	0.34	0.49	0.54
	L (L/S)	0.22	0.27	0.33	0.37
Water Pressure Drop	H (kPa)	33.86	59.86	92.21	114.52
	M (kPa)	23.95	40.51	75.79	91.25
	L (kPa)	19.18	29.20	44.24	56.80

4 Rows, 2 Pipes

	Model No	FWLUC/D4-80	FWLUC/D4-100	FWLUC/D4-120	FWLUC/D4-140
Air flow	H (cfm)	735	983	1210	1365
	M (cfm)	509	650	982	1079
	L (cfm)	404	465	564	657
Total Cooling Capacity	H (kW)	8.63	11.51	14.22	15.92
	M (kW)	6.58	8.48	12.20	13.41
	L (kW)	5.51	6.54	7.97	9.17
Sensible Cooling Capacity	H (kW)	5.90	7.83	9.64	10.78
	M (kW)	4.40	5.65	8.19	8.99
	L (kW)	3.65	4.28	5.21	6.01
Heating Capacity	H (kW)	9.05	11.92	14.57	16.25
	M (kW)	6.82	8.69	12.46	13.64
	L (kW)	5.68	6.65	8.05	9.25
Water Flow Rate	H (L/S)	0.41	0.55	0.68	0.76
	M (L/S)	0.31	0.40	0.58	0.64
	L (L/S)	0.26	0.31	0.38	0.44
Water Pressure Drop	H (kPa)	27.71	47.15	70.26	86.50
	M (kPa)	20.03	32.72	58.84	70.48
	L (kPa)	16.21	23.98	35.38	44.78

The following rating conditions are used:

Cooling: Entering air temperature: +27°C DB; +19.5°C WB

Heating: Entering air temperature: +20°C DB

Water inlet/outlet: +7/12°C

Water inlet/outlet: +50°C/60°C

3+1 Rows, 4 Pipes

	Model No	FWLUC/D31-20	FWLUC/D31-30	FWLUC/D31-40	FWLUC/D31-50	FWLUC/D31-60
Air flow	H (cfm)	235	291	388	501	270
	M (cfm)	178	247	292	391	411
	L (cfm)	131	194	218	245	274
Total Cooling Capacity	H (kW)	1.96	2.53	3.49	4.52	5.30
	M (kW)	1.63	2.26	2.86	3.80	4.19
	L (kW)	1.31	1.91	2.31	2.71	3.11
Sensible Cooling Capacity	H (kW)	1.39	1.75	2.37	3.04	3.51
	M (kW)	1.12	1.55	1.90	2.51	2.73
	L (kW)	0.88	1.28	1.51	1.74	1.98
Heating Capacity	H (kW)	1.61	2.06	2.82	3.63	4.25
	M (kW)	1.37	1.87	2.37	3.12	3.47
	L (kW)	1.13	1.61	1.97	2.33	2.69
Cooling Water Flow Rate	H (L/S)	0.09	0.12	0.17	0.22	0.25
	M (L/S)	0.08	0.11	0.14	0.18	0.20
	L (L/S)	0.06	0.09	0.11	0.13	0.15
Cooling Water Pressure Drop	H (kPa)	2.56	4.17	7.78	12.67	17.71
	M (kPa)	2.00	3.60	5.98	10.08	13.04
	L (kPa)	1.51	2.88	4.52	6.45	8.79
Heating Water Flow Rate	H (L/S)	0.04	0.05	0.07	0.09	0.10
	M (L/S)	0.03	0.04	0.06	0.07	0.08
	L (L/S)	0.03	0.04	0.05	0.06	0.06
Heating Water Pressure Drop	H (kPa)	0.36	0.60	1.12	1.83	2.58
	M (kPa)	0.29	0.52	0.89	1.49	1.96
	L (kPa)	0.22	0.43	0.69	1.00	1.38

3+1 Rows, 4 Pipes

	Model No	FWLUC/D31-80	FWLUC/D31-100	FWLUC/D31-120	FWLUC/D31-140
Air flow	H (cfm)	753	983	1210	1365
	M (cfm)	509	650	982	1079
	L (cfm)	404	465	564	657
Total Cooling Capacity	H (kW)	7.14	9.56	11.83	13.26
	M (kW)	5.46	7.06	10.17	11.18
	L (kW)	4.60	5.48	6.70	7.70
Sensible Cooling Capacity	H (kW)	4.64	6.17	7.59	8.50
	M (kW)	3.49	4.48	6.74	7.10
	L (kW)	2.91	3.42	4.17	4.80
Heating Capacity	H (kW)	5.73	7.59	9.35	10.43
	M (kW)	4.55	5.86	8.21	9.01
	L (kW)	3.93	4.72	5.76	6.56
Cooling Water Flow Rate	H (L/S)	0.34	0.46	0.56	0.63
	M (L/S)	0.26	0.34	0.49	0.53
	L (L/S)	0.22	0.26	0.32	0.37
Cooling Water Pressure Drop	H (kPa)	33.46	59.18	91.19	113.34
	M (kPa)	23.54	39.78	74.68	90.62
	L (kPa)	18.77	28.53	43.21	55.54
Heating Water Flow Rate	H (L/S)	0.14	0.18	0.22	0.25
	M (L/S)	0.11	0.14	0.20	0.22
	L (L/S)	0.09	0.11	0.14	0.16
Heating Water Pressure Drop	H (kPa)	4.95	8.79	13.29	16.88
	M (kPa)	3.61	6.16	11.37	13.83
	L (kPa)	2.96	4.59	7.00	8.96

ARI- 440 Standard Rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB	Heating: Entering air temperature: +68°F DB
Water inlet/outlet: +45/55°F	Water inlet temperature: +140°F
	Water flow rate as for the cooling conditions

3 Rows, 2 Pipes

	Model No	FWLUC/D3-20	FWLUC/D3-30	FWLUC/D3-40	FWLUC/D3-50	FWLUC/D3-60
Air flow	H (cfm)	242	300	400	517	587
	M (cfm)	184	255	301	403	424
	L (cfm)	135	200	224	253	283
Total Cooling Capacity	H (Btu/h)	6041	7850	10956	14300	16826
	M (Btu/h)	5051	7065	9044	12082	13447
	L (Btu/h)	4130	6007	7372	8703	10068
Sensible Cooling Capacity	H (Btu/h)	4846	6143	8294	10683	12355
	M (Btu/h)	3959	5427	6724	8874	9659
	L (Btu/h)	3106	4505	5358	6212	7065
Heating Capacity	H (Btu/h)	10922	13618	18294	23277	26860
	M (Btu/h)	8806	12150	14847	19522	21331
	L (Btu/h)	7065	10307	11980	13891	15836
Water Flow Rate	H (Gpm)	1.27	1.59	2.22	2.85	3.33
	M (Gpm)	0.95	1.43	1.74	2.38	2.69
	L (Gpm)	0.79	1.27	1.43	1.74	2.06
Water Pressure Drop	H (ftH2O)	0.66	1.09	2.06	3.38	4.76
	M (ftH2O)	0.52	0.95	1.60	2.71	3.54
	L (ftH2O)	0.40	0.77	1.22	1.76	2.42

4 Rows, 2 Pipes

	Model No	FWLUC/D4-20	FWLUC/D4-30	FWLUC/D4-40	FWLUC/D4-50	FWLUC/D4-60
Air flow	H (cfm)	235	291	388	501	570
	M (cfm)	178	247	292	391	411
	L (cfm)	131	194	218	245	274
Total Cooling Capacity	H (Btu/h)	7577	9761	13481	17475	20478
	M (Btu/h)	6314	8737	11058	14710	16246
	L (Btu/h)	5085	7372	8942	10478	12014
Sensible Cooling Capacity	H (Btu/h)	5700	7201	9727	12526	14505
	M (Btu/h)	4608	6348	7782	10341	11229
	L (Btu/h)	3584	5222	6143	7099	8055
Heating Capacity	H (Btu/h)	12628	15597	20990	26758	30854
	M (Btu/h)	10205	13891	16997	22355	24198
	L (Btu/h)	7952	11502	13447	15461	17509
Water Flow Rate	H (Gpm)	1.59	1.90	2.69	3.49	4.12
	M (Gpm)	1.27	1.74	2.22	3.01	3.33
	L (Gpm)	0.95	1.43	1.74	2.06	2.38
Water Pressure Drop	H (ftH2O)	0.68	1.08	1.94	3.06	4.20
	M (ftH2O)	0.55	0.95	1.53	2.49	3.19
	L (ftH2O)	0.42	0.77	1.19	1.66	2.22

3 Rows, 2 Pipes

	Model No	FWLUC/D3-80	FWLUC/D3-100	FWLUC/D3-120	FWLUC/D3-140
Air flow	H (cfm)	758	1013	1248	1407
	M (cfm)	524	670	1012	1112
	L (cfm)	417	479	582	677
Total Cooling Capacity	H (Btu/h)	22901	30717	38157	42765
	M (Btu/h)	17645	22935	32935	36246
	L (Btu/h)	14949	17952	21980	25256
Sensible Cooling Capacity	H (Btu/h)	16417	21809	26860	30034
	M (Btu/h)	12423	15939	22969	25222
	L (Btu/h)	10376	12287	14949	17202
Heating Capacity	H (Btu/h)	35461	46690	57065	63618
	M (Btu/h)	27133	34676	49318	53960
	L (Btu/h)	22935	27031	32731	37441
Water Flow Rate	H (Gpm)	4.60	6.18	7.61	8.56
	M (Gpm)	3.49	4.60	6.66	7.29
	L (Gpm)	3.01	3.65	4.44	5.07
Water Pressure Drop	H (ftH ₂ O)	9.09	16.16	24.97	31.06
	M (ftH ₂ O)	6.47	11.00	20.58	25.00
	L (ftH ₂ O)	5.20	7.97	12.11	15.54

4 Rows, 2 Pipes

	Model No	FWLUC/D4-80	FWLUC/D4-100	FWLUC/D4-120	FWLUC/D4-140
Air flow	H (cfm)	735	983	1210	1365
	M (cfm)	509	650	982	1079
	L (cfm)	404	465	564	657
Total Cooling Capacity	H (Btu/h)	27645	36963	45768	51263
	M (Btu/h)	21161	27372	39386	43345
	L (Btu/h)	17816	21195	25905	29830
Sensible Cooling Capacity	H (Btu/h)	19181	25495	31400	35154
	M (Btu/h)	14335	18430	26724	29318
	L (Btu/h)	11877	13993	17065	19659
Heating Capacity	H (Btu/h)	40478	53345	65257	72799
	M (Btu/h)	30649	39079	55905	61229
	L (Btu/h)	25563	29932	36246	41639
Water Flow Rate	H (Gpm)	5.55	7.45	9.19	10.30
	M (Gpm)	4.28	5.55	7.93	8.72
	L (Gpm)	3.65	4.28	5.23	6.02
Water Pressure Drop	H (ftH ₂ O)	7.66	13.09	19.66	24.10
	M (ftH ₂ O)	5.57	9.14	16.43	19.71
	L (ftH ₂ O)	4.53	6.74	9.96	12.60

The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB	Heating: Entering air temperature: +68°F DB
Water inlet/outlet: +45/55°F	Water inlet temperature: +140°F

3+1 Rows, 4 Pipes

	Model No	FWLUC/D31-20	FWLUC/D31-30	FWLUC/D31-40	FWLUC/D31-50	FWLUC/D31-60
Air flow	H (cfm)	235	291	388	501	270
	M (cfm)	178	247	292	391	411
	L (cfm)	131	194	218	245	274
Total Cooling Capacity	H (Btu/h)	6007	7816	10887	14198	16724
	M (Btu/h)	5017	6997	8976	11980	13311
	L (Btu/h)	4061	5939	7270	8601	9898
Sensible Cooling Capacity	H (Btu/h)	4437	5631	7611	9795	11331
	M (Btu/h)	3584	4949	6109	8123	8840
	L (Btu/h)	2833	4096	4846	5631	6416
Heating Capacity	H (Btu/h)	4061	5529	8055	10717	12935
	M (Btu/h)	3515	5051	6860	9317	10717
	L (Btu/h)	3003	4437	5802	7099	8430
Cooling Water Flow Rate	H (Gpm)	1.27	1.59	2.22	2.85	3.33
	M (Gpm)	0.95	1.43	1.74	2.38	2.69
	L (Gpm)	0.79	1.27	1.43	1.74	2.06
Cooling Water Pressure Drop	H (ftH ₂ O)	0.66	1.08	2.04	3.35	4.72
	M (ftH ₂ O)	0.52	0.94	1.58	2.68	3.50
	L (ftH ₂ O)	0.39	0.76	1.20	1.73	2.37
Heating Water Flow Rate	H (Gpm)	0.16	0.32	0.48	0.48	0.63
	M (Gpm)	0.16	0.32	0.32	0.48	0.48
	L (Gpm)	0.16	0.16	0.32	0.32	0.48
Heating Water Pressure Drop	H (ftH ₂ O)	0.03	0.05	0.10	0.17	0.25
	M (ftH ₂ O)	0.02	0.04	0.08	0.14	0.19
	L (ftH ₂ O)	0.02	0.04	0.06	0.10	0.14

District Cooling Standard Rating

The following rating conditions are used:	
Cooling: Entering air temperature: +24.4 °CDB; +17.2 °CWB	
Water inlet/outlet: +5.5/14.4°C	

4 Rows, 2 Pipes

	Model No	FWLUC/D4-20	FWLUC/D4-30	FWLUC/D4-40	FWLUC/D4-50	FWLUC/D4-60
Air flow	H (cfm)	235	291	388	501	570
	M (cfm)	178	247	292	391	411
	L (cfm)	131	194	218	245	274
Total Cooling Capacity	H (kW)	1.31	1.71	2.35	3.16	3.84
	M (kW)	1.08	1.52	2.00	2.73	3.15
	L (kW)	0.85	1.28	1.67	2.05	2.42
Sensible Cooling Capacity	H (kW)	1.29	1.68	2.31	3.01	3.52
	M (kW)	1.06	1.50	1.86	2.50	2.75
	L (kW)	0.83	1.23	1.48	1.74	2.00
Water Flow Rate	H (L/S)	0.04	0.05	0.06	0.08	0.10
	M (L/S)	0.03	0.04	0.05	0.07	0.08
	L (L/S)	0.02	0.03	0.04	0.05	0.07
Water Pressure Drop	H (kPa)	0.61	0.98	1.75	2.89	4.14
	M (kPa)	0.48	0.85	1.44	2.43	3.27
	L (kPa)	0.36	0.69	1.17	1.72	2.39

3+1 Rows, 4 Pipes

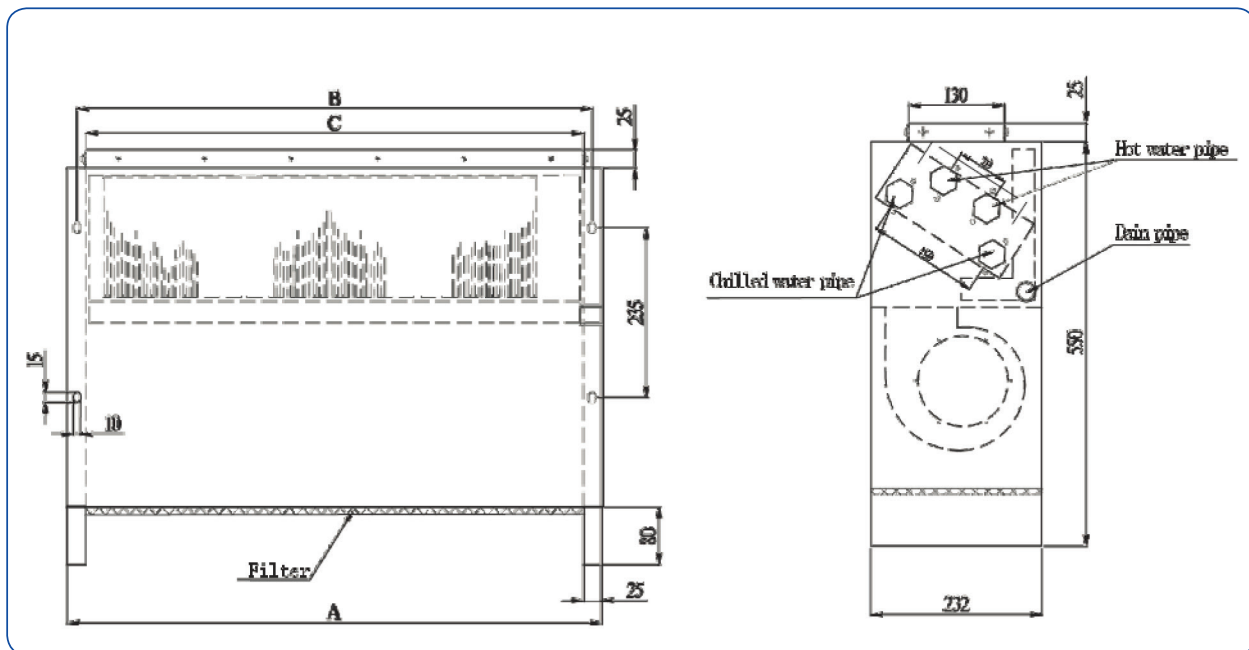
	Model No	FWLUC/D31-80	FWLUC/D31-100	FWLUC/D31-120	FWLUC/D31-140
Air flow	H (cfm)	735	983	1210	1365
	M (cfm)	509	650	982	1079
	L (cfm)	404	465	564	657
Total Cooling Capacity	H (Btu/h)	22696	30512	37884	42492
	M (Btu/h)	17440	22662	32628	35905
	L (Btu/h)	14744	17645	21638	24881
Sensible Cooling Capacity	H (Btu/h)	15051	20034	24676	27645
	M (Btu/h)	11331	14574	21058	23106
	L (Btu/h)	9454	11161	13584	15632
Heating Capacity	H (Btu/h)	18260	24813	31127	34949
	M (Btu/h)	14676	19386	27475	30376
	L (Btu/h)	12765	15768	19556	22389
Cooling Water Flow Rate	H (Gpm)	4.60	6.18	7.61	8.56
	M (Gpm)	3.49	4.60	6.50	7.29
	L (Gpm)	3.01	3.49	4.28	5.07
Cooling Water Pressure Drop	H (ftH ₂ O)	9.00	16.00	24.74	30.78
	M (ftH ₂ O)	6.37	10.82	20.32	24.69
	L (ftH ₂ O)	5.10	7.80	11.85	15.23
Heating Water Flow Rate	H (Gpm)	0.95	1.27	1.59	1.74
	M (Gpm)	0.79	0.95	1.43	1.59
	L (Gpm)	0.63	0.79	0.95	1.11
Heating Water Pressure Drop	H (ftH ₂ O)	0.51	0.93	1.48	1.85
	M (ftH ₂ O)	0.37	0.66	1.24	1.53
	L (ftH ₂ O)	0.31	0.50	0.78	1.01

4 Rows, 2 Pipes

	Model No	FWLUC/D4-80	FWLUC/D4-100	FWLUC/D4-120	FWLUC/D4-140
Air flow	H (cfm)	735	983	1210	1365
	M (cfm)	509	650	982	1079
	L (cfm)	404	465	564	657
Total Cooling Capacity	H (kW)	5.46	7.50	9.45	10.65
	M (kW)	4.32	5.73	8.26	9.14
	L (kW)	3.71	4.56	5.66	6.52
Sensible Cooling Capacity	H (kW)	4.75	6.38	7.92	8.88
	M (kW)	3.58	4.65	6.76	7.45
	L (kW)	2.99	3.57	4.38	5.05
Water Flow Rate	H (L/S)	0.15	0.20	0.25	0.29
	M (L/S)	0.12	0.15	0.22	0.25
	L (L/S)	0.10	0.12	0.15	0.17
Water Pressure Drop	H (kPa)	8.05	14.18	21.77	26.86
	M (kPa)	6.08	10.29	18.51	22.39
	L (kPa)	5.06	7.82	11.78	14.93

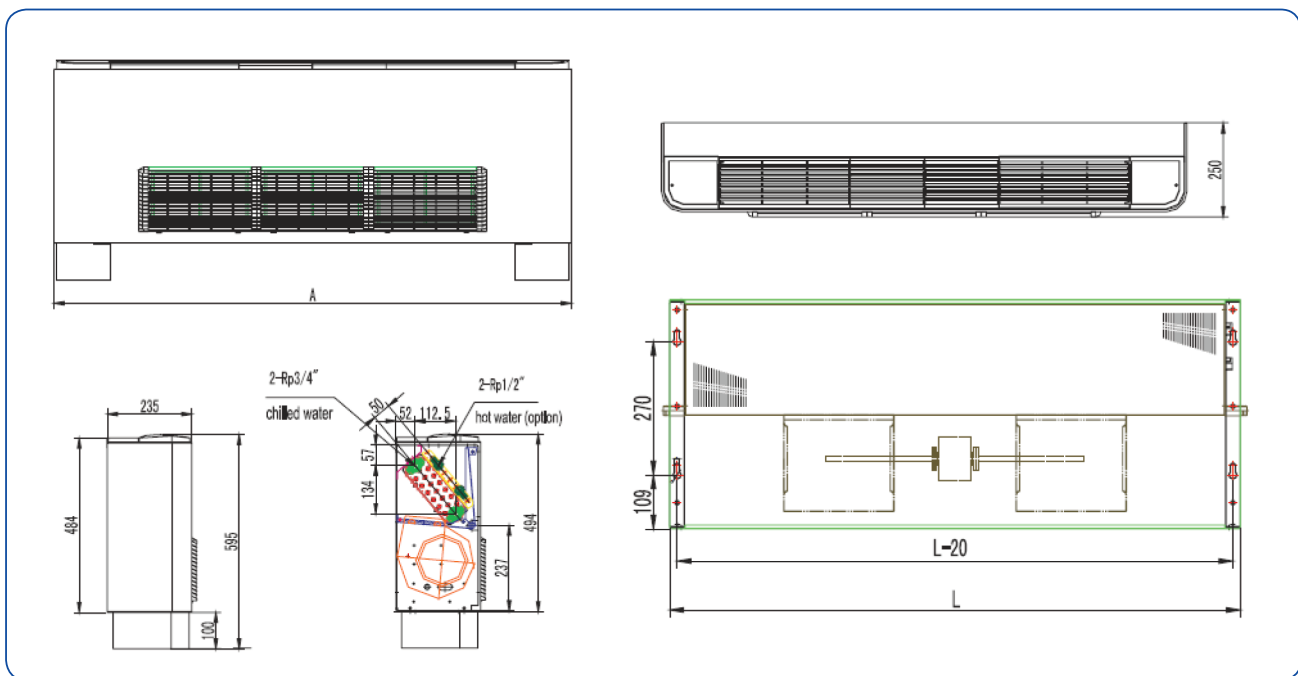
Dimensional Data - FWLUC/D

Model No	A	B	C
FWLUC-20	640	614	590
FWLUC-30	740	714	690
FWLUC-40	840	814	790
FWLUC-50	940	914	890
FWLUC-60	1070	1044	1020
FWLUC-80	1390	1364	1340
FWLUC-100	1590	1564	1540
FWLUC-120	1800	1774	1750
FWLUC-140	1900	1874	1850



Dimensions are in mm

Model No	L	A
FWLUD-20	598	858
FWLUD-30	658	908
FWLUD-40	808	1058
FWLUD-50	958	1208
FWLUD-60	1008	1258
FWLUD-80	1358	1608
FWLUD-100	1508	1758
FWLUD-120	1658	1908
FWLUD-140	1808	2058



Dimensions are in mm

GENERAL DATA-FWL1CM (Fan Coil Unit Water Cooled Low Static 1-way Cassette Ceiling Mounted)

	Model No	FWL1CM-20	FWL1CM-30	FWL1CM-40	FWL1CM-50
	Nominal Air Volume (cfm)	200	300	400	500
Coil	Copper tube	3/8"(9.52mm) OD seamless copper tube			
	Fins	Hi-efficiency wavy corrugated aluminium blue fins			
	Fins per Inch (fpi)	12	12	12	12
	Coil Length (mm)	445	445	600	600
	Coil Height (mm)	200	200	200	200
Fan	Fan type	Double inlet centrifugal forward curve, steel wheel, direct driven			
	Quantity (No)	1	2	2	2
Motor	Voltage (V)	220- 240V /1 Ph /50- 60Hz ,110- 127V /1 Ph /50Hz			
	Motor Speed	3 speed			
	Quantity (No)	1	1	1	1
	Max Power Input (W)	45	54	62	70
Fan sound level @ 1 mtr	H (dBA)	39	39	40	42
	M (dBA)	36	36	39	39
	L (dBA)	30	30	31	37
Water pipe	Cooling coil	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
	Heating coil (4 pipes unit)	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
Drain pipe		3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP
Dimension	Length (mm)	1145	1145	1145	1145
	Width (mm)	540	540	540	540
	Height (mm)	340	340	340	340
Weight	Net Weight (kg)	23	23	23	23

Performance DATA-FWL1CM (Fan Coil Unit Water Cooled Low Static 1-way Cassette Ceiling Mounted)

The performance data lists regular EU standard, ARI 440 standard and District Cooling

Standard rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°C WB	Heating: Entering air temperature: +20°C DB
Water inlet/outlet: +7/12°C	Water inlet temperature: +50°C
	Water flow rate as for the cooling conditions

3 Rows, 2 Pipes

	Model No	FWL1CM3-20	FWL1CM3-30	FWL1CM3-40	FWL1CM3-50
Air flow	H (cfm)	200	300	400	500
	M (cfm)	159	235	306	383
	L (cfm)	112	177	235	294
Total Cooling Capacity	H (kW)	2.05	2.73	3.98	4.65
	M (kW)	1.74	2.30	3.28	3.85
	L (kW)	1.34	1.88	2.70	3.19
Sensible Cooling Capacity	H (kW)	1.48	2.02	2.84	3.37
	M (kW)	1.23	1.68	2.30	2.74
	L (kW)	0.92	1.34	1.87	2.23
Heating Capacity	H (kW)	2.55	3.46	4.79	5.64
	M (kW)	2.12	2.89	3.91	4.62
	L (kW)	1.59	2.31	3.18	3.78
Water Flow Rate	H (L/S)	0.10	0.13	0.19	0.22
	M (L/S)	0.08	0.11	0.16	0.18
	L (L/S)	0.06	0.09	0.13	0.15
Water Pressure Drop	H (kPa)	2.72	3.95	8.73	10.73
	M (kPa)	2.19	3.16	6.78	8.37
	L (kPa)	1.55	2.42	5.25	6.53

The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°C WB Water inlet/outlet: +7/12°C	Heating: Entering air temperature: +20°C DB Water inlet temperature: +70°C/60°C

3+1 Rows, 4 Pipes

	Model No	FWL1CM31-20	FWL1CM31-30	FWL1CM31-40	FWL1CM31-50
Air flow	H (cfm)	195	291	388	494
	M (cfm)	156	228	297	374
	L (cfm)	107	170	230	286
Total Cooling Capacity	H (kW)	2.20	2.95	4.25	5.07
	M (kW)	1.86	2.47	3.47	4.13
	L (kW)	1.38	1.98	2.84	3.37
Sensible Cooling Capacity	H (kW)	1.42	1.96	2.74	3.32
	M (kW)	1.18	1.62	2.20	2.66
	L (kW)	0.86	1.27	1.78	2.14
Heating Capacity	H (kW)	3.20	4.29	5.98	7.12
	M (kW)	2.69	3.59	4.90	5.82
	L (kW)	2.01	2.87	4.03	4.77
Cooling Water Flow Rate	H (L/S)	0.11	0.14	0.20	0.24
	M (L/S)	0.09	0.12	0.17	0.20
	L (L/S)	0.07	0.09	0.14	0.16
Cooling Water Pressure Drop	H (kPa)	2.98	4.38	9.53	12.02
	M (kPa)	2.38	3.47	7.30	9.19
	L (kPa)	1.62	2.59	5.62	7.03
Heating Water Flow Rate	H (L/S)	0.08	0.10	0.14	0.17
	M (L/S)	0.06	0.09	0.12	0.14
	L (L/S)	0.05	0.07	0.10	0.11
Heating Water Pressure Drop	H (kPa)	1.86	2.78	5.92	7.52
	M (kPa)	1.47	2.18	4.51	5.71
	L (kPa)	0.99	1.61	3.45	4.34

ARI- 440 Standard Rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +80°FDB; +67°FWB	Heating: Entering air temperature: +68°FDB
Water inlet/outlet: +45/55°F	Water inlet temperature: +140°F
	Water flow rate as for the cooling conditions

3 Rows, 2 Pipes

	Model No	FWL1CM3- 20	FWL1CM3- 30	FWL1CM3- 40	FWL1CM3- 50
Air flow	H (cfm)	200	300	400	500
	M (cfm)	159	235	306	383
	L (cfm)	112	177	235	294
Total Cooling Capacity	H (Btu/h)	6416	8430	12492	14574
	M (Btu/h)	5461	7167	10341	12116
	L (Btu/h)	4232	5870	8567	10068
Sensible Cooling Capacity	H (Btu/h)	4744	6485	9147	10819
	M (Btu/h)	3959	5393	7440	8840
	L (Btu/h)	2969	4300	6041	7201
Heating Capacity	H (Btu/h)	11229	15290	21263	25120
	M (Btu/h)	9454	12696	17338	20444
	L (Btu/h)	7065	10137	14198	16894
Water Flow Rate	H (Gpm)	1.27	1.74	2.54	3.01
	M (Gpm)	1.11	1.43	2.06	2.38
	L (Gpm)	0.79	1.11	1.74	2.06
Water Pressure Drop	H (ftH2O)	0.71	1.02	2.31	2.83
	M (ftH2O)	0.58	0.83	1.81	2.22
	L (ftH2O)	0.41	0.64	1.41	1.74

The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB Water inlet/outlet: +45/55°F	Heating: Entering air temperature: +68°F DB Water inlet temperature: +180°F/140°F

3+1 Rows, 4 Pipes

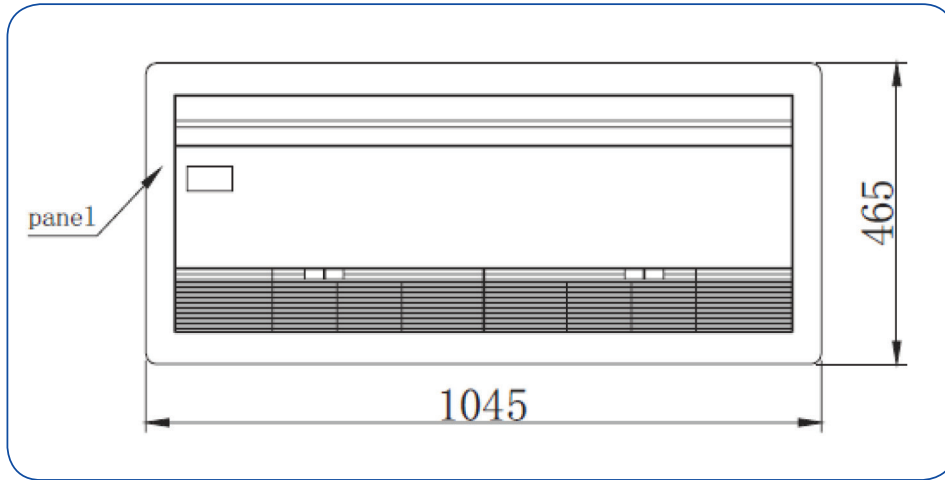
	Model No	FWL1CM31- 20	FWL1CM31- 30	FWL1CM31- 40	FWL1CM31- 50
Air flow	H (cfm)	195	291	388	494
	M (cfm)	156	228	297	374
	L (cfm)	107	170	230	286
Total Cooling Capacity	H (Btu/h)	6963	9249	13481	16007
	M (Btu/h)	5870	7782	11058	13106
	L (Btu/h)	4403	6246	9079	10751
Sensible Cooling Capacity	H (Btu/h)	4608	6314	8874	10717
	M (Btu/h)	3823	5222	7133	8601
	L (Btu/h)	2799	4096	5768	6928
Heating Capacity	H (Btu/h)	10683	14062	20444	24130
	M (Btu/h)	9113	11911	16928	19932
	L (Btu/h)	6894	9659	14062	16485
Cooling Water Flow Rate	H (Gpm)	1.43	1.90	2.69	3.17
	M (Gpm)	1.11	1.59	2.22	2.69
	L (Gpm)	0.95	1.27	1.90	2.22
Cooling Water Pressure Drop	H (ftH ₂ O)	0.79	1.15	2.55	3.20
	M (ftH ₂ O)	0.64	0.92	1.97	2.47
	L (ftH ₂ O)	0.44	0.69	1.52	1.90
Heating Water Flow Rate	H (Gpm)	0.48	0.63	0.95	1.27
	M (Gpm)	0.48	0.63	0.79	0.95
	L (Gpm)	0.32	0.48	0.63	0.79
Heating Water Pressure Drop	H (ftH ₂ O)	0.20	0.29	0.67	0.84
	M (ftH ₂ O)	0.16	0.23	0.52	0.65
	L (ftH ₂ O)	0.11	0.18	0.40	0.50

District Cooling Standard Rating
The following rating conditions are used:
Cooling: Entering air temperature: +24.4 °C DB; +17.2 °C WB Water inlet/outlet: +5.5/14.4°C

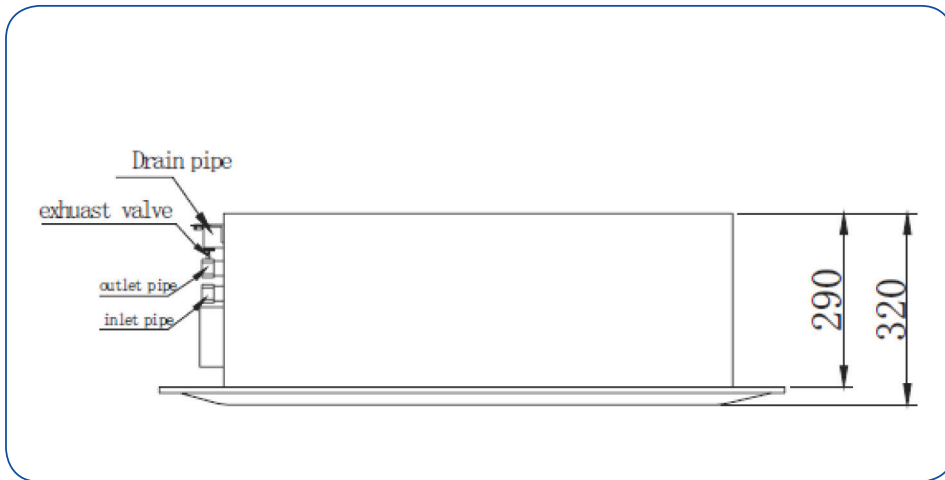
3 Rows, 2 Pipes

	Model No	FWL1CM3- 20	FWL1CM3- 30	FWL1CM3- 40	FWL1CM3- 50
Air flow	H (cfm)	200	300	400	500
	M (cfm)	159	235	306	383
	L (cfm)	112	177	235	294
Total Cooling Capacity	H (kW)	1.11	1.48	2.22	2.60
	M (kW)	0.94	1.25	1.82	2.13
	L (kW)	0.73	1.02	1.55	1.78
Sensible Cooling Capacity	H (kW)	1.10	1.46	2.18	2.55
	M (kW)	0.93	1.23	1.77	2.10
	L (kW)	0.70	1.00	1.44	1.71
Water Flow Rate	H (L/S)	0.03	0.04	0.06	0.07
	M (L/S)	0.03	0.03	0.05	0.06
	L (L/S)	0.02	0.03	0.04	0.05
Water Pressure Drop	H (kPa)	0.57	0.83	1.90	2.34
	M (kPa)	0.46	0.67	1.47	1.78
	L (kPa)	0.33	0.51	1.19	1.42

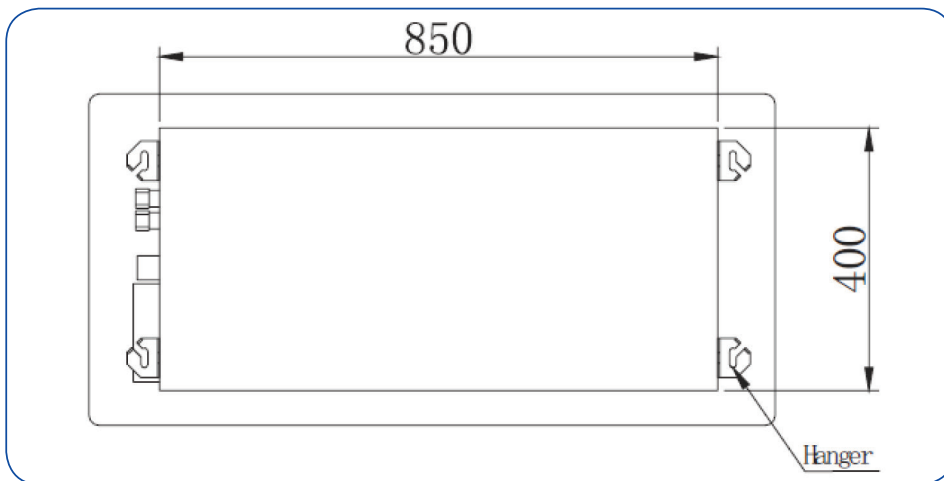
Dimensional DATA-FWL1CM



Dimensions are in mm



Dimensions are in mm



Dimensions are in mm

GENERAL DATA-FWL2CM

(Fan Coil Unit Water Cooled Low Static 2-way Cassette Ceiling Mounted)

	Model No	FWL2CM-20	FWL2CM-30	FWL2CM-40	FWL2CM-50	FWL2CM-60
	Nominal Air Volume (cfm)	200	300	400	500	600
Coil	Copper tube	3/8" (9.52mm) OD seamless copper tube				
	Fins	Hi-efficiency wavy corrugated aluminium blue fins				
	Fins per Inch (fpi)	12	12	12	12	12
	Coil Length (mm)	1350	1350	1350	2500	2500
	Coil Height (mm)	200	200	200	200	200
Fan	Fan type	Double inlet centrifugal forward curve , steel wheel, direct driven				
	Quantity (No)	1	2	2	2	2
Motor	Voltage (V)	220-240V /1Ph/50-60Hz,110-127V /1Ph/50Hz				
	Motor Speed	3 speed				
	Quantity (No)	1	1	1	1	1
	Max Power Input (W)	37	46	60	70	85
Fan sound level @ 1 mtr	H (dBA)	38	39	42	43	44
	M (dBA)	35	36	38	39	40
	L (dBA)	30	32	35	35	36
Water pipe	Cooling coil	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
	Heating coil (4 pipes unit)	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
Drain pipe		3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP
Dimension	Length (mm)	960	960	960	1485	1485
	Width (mm)	820	820	820	820	820
	Height (mm)	370	370	370	370	370
Weight	Net Weight (kg)	26	26	26	56	56

	Model No	FWL2CM-80	FWL2CM-100	FWL2CM-120	FWL2CM-140
	Nominal Air Volume (cfm)	800	1000	1200	1400
Coil	Copper tube	3/8"(9.52mm) OD seamless copper tube			
	Fins	Hi-efficiency wavy corrugated aluminium blue fins			
	Fins per Inch (fpi)	12	12	12	12
	Coil Length (mm)	2500	2740	2740	2740
	Coil Height (mm)	200	200	200	200
Fan	Fan type	Double inlet centrifugal forward curve , steel wheel, direct driven			
	Quantity (No)	3	4	4	4
Motor	Voltage (V)	220-240V /1Ph/50-60Hz,110-127V /1Ph/50Hz			
	Motor Speed	3 speed			
	Quantity (No)	2	2	2	2
	Max Power Input (W)	110	130	163	180
Fan sound level @ 1 mtr	H (dBA)	45	48	49	51
	M (dBA)	42	43	46	48
	L (dBA)	37	40	43	46
Water pipe	Cooling coil	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
	Heating coil (4 pipes unit)	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
Drain pipe		3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP
Dimension	Length (mm)	1485	2060	2060	2060
	Width (mm)	820	820	820	820
	Height (mm)	370	370	370	370
Weight	Net Weight (kg)	56	71	71	71

Performance DATA-FWL2CM

The performance data lists regular EU standard, ARI 440 standard and District Cooling	
Standard rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°C WB	Heating: Entering air temperature: +20°C DB
Water inlet/outlet: +7/12°C	Water inlet temperature: +50°C
	Water flow rate as for the cooling conditions

2 Rows, 2 Pipes

	Model No	FWL2CM2-20	FWL2CM2-30	FWL2CM2-40	FWL2CM2-50	FWL2CM2-60
Air flow	H (cfm)	265	300	400	500	600
	M (cfm)	212	247	335	377	450
	L (cfm)	177	206	275	288	353
Total Cooling Capacity	H (kW)	3.09	3.43	4.35	5.77	6.71
	M (kW)	2.56	2.92	3.76	4.55	5.29
	L (kW)	2.20	2.50	3.19	3.63	4.31
Sensible Cooling Capacity	H (kW)	2.06	2.29	2.93	3.86	4.51
	M (kW)	1.70	1.94	2.52	3.03	3.53
	L (kW)	1.45	1.66	2.13	2.40	2.86
Heating Capacity	H (kW)	3.63	4.01	5.06	6.82	7.89
	M (kW)	3.01	3.43	4.39	5.39	6.24
	L (kW)	2.58	2.95	3.73	4.29	5.11
Water Flow Rate	H (L/S)	0.15	0.16	0.21	0.28	0.32
	M (L/S)	0.12	0.14	0.18	0.22	0.25
	L (L/S)	0.10	0.12	0.15	0.17	0.21
Water Pressure Drop	H (kPa)	24.40	28.24	39.39	20.54	25.37
	M (kPa)	18.78	22.50	32.12	14.73	18.16
	L (kPa)	15.13	18.17	25.55	10.73	13.65

2 Rows, 2 Pipes

	Model No	FWL2CM2-80	FWL2CM2-100	FWL2CM2-120	FWL2CM2-140
Air flow	H (cfm)	800	1001	1201	1401
	M (cfm)	618	765	924	1059
	L (cfm)	471	565	712	836
Total Cooling Capacity	H (kW)	8.50	10.47	12.14	13.75
	M (kW)	6.87	8.41	9.82	10.97
	L (kW)	5.49	6.55	7.93	9.04
Sensible Cooling Capacity	H (kW)	5.75	7.09	8.25	9.38
	M (kW)	4.62	5.65	6.63	7.44
	L (kW)	3.67	4.37	5.32	6.09
Heating Capacity	H (kW)	9.91	12.06	13.86	15.57
	M (kW)	8.08	9.78	11.35	12.59
	L (kW)	6.48	7.67	9.25	10.48
Water Flow Rate	H (L/S)	0.41	0.50	0.58	0.66
	M (L/S)	0.33	0.40	0.47	0.52
	L (L/S)	0.26	0.31	0.38	0.43
Water Pressure Drop	H (kPa)	35.33	51.91	63.87	75.98
	M (kPa)	26.23	38.17	47.41	55.40
	L (kPa)	19.13	26.84	35.12	42.24

The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°C WB Water inlet/outlet: +7/12°C	Heating: Entering air temperature: +20°C DB Water inlet temperature: +70°C/60°C Water flow rate as for the cooling conditions

2+1 Rows, 4 Pipes

	Model No	FWL2CM21-20	FWL2CM21-30	FWL2CM21-40	FWL2CM21-50	FWL2CM21-60
Air flow	H (cfm)	265	300	400	500	600
	M (cfm)	212	247	335	377	450
	L (cfm)	177	206	275	288	353
Total Cooling Capacity	H (kW)	2.91	3.23	4.08	5.86	6.83
	M (kW)	2.42	2.75	3.53	4.61	5.37
	L (kW)	2.08	2.36	3.01	3.67	4.36
Sensible Cooling Capacity	H (kW)	1.84	2.04	2.61	3.61	4.23
	M (kW)	1.52	1.73	2.25	2.82	3.30
	L (kW)	1.30	1.48	1.90	2.23	2.67
Heating Capacity	H (kW)	4.11	4.50	5.52	8.04	9.19
	M (kW)	3.48	3.90	4.87	6.50	7.43
	L (kW)	3.03	3.41	4.22	5.29	6.18
Cooling Water Flow Rate	H (L/S)	0.14	0.15	0.19	0.28	0.33
	M (L/S)	0.12	0.13	0.17	0.22	0.26
	L (L/S)	0.10	0.11	0.14	0.18	0.21
Cooling Water Pressure Drop	H (kPa)	14.02	16.20	22.00	69.36	85.97
	M (kPa)	10.82	12.96	5.52	49.51	61.23
	L (kPa)	8.74	10.47	14.68	35.93	45.83
Heating Water Flow Rate	H (L/S)	0.10	0.11	0.13	0.19	0.22
	M (L/S)	0.08	0.09	0.12	0.16	0.18
	L (L/S)	0.07	0.08	0.10	0.13	0.15
Heating Water Pressure Drop	H (kPa)	10.40	11.78	15.60	32.18	38.64
	M (kPa)	8.30	9.70	13.15	24.05	28.90
	L (kPa)	6.87	8.06	10.81	18.15	22.49

2+1 Rows, 4 Pipes

	Model No	FWL2CM21-80	FWL2CM21-100	FWL2CM21-120	FWL2CM21-140
Air flow	H (cfm)	800	1001	1201	1401
	M (cfm)	618	765	924	1059
	L (cfm)	471	565	712	836
Total Cooling Capacity	H (kW)	8.68	10.69	12.42	14.09
	M (kW)	7.68	8.56	10.01	11.21
	L (kW)	5.57	6.64	8.06	9.21
Sensible Cooling Capacity	H (kW)	5.41	6.66	7.77	8.85
	M (kW)	4.34	5.30	6.23	6.99
	L (kW)	3.43	4.08	4.99	5.72
Heating Capacity	H (kW)	11.30	13.65	15.50	17.23
	M (kW)	9.38	11.28	12.91	14.21
	L (kW)	7.68	9.05	10.71	12.02
Cooling Water Flow Rate	H (L/S)	0.41	0.51	0.59	0.67
	M (L/S)	0.33	0.41	0.48	0.53
	L (L/S)	0.27	0.32	0.38	0.44
Cooling Water Pressure Drop	H (kPa)	120.22	176.48	217.86	259.79
	M (kPa)	88.94	129.27	161.02	188.58
	L (kPa)	64.58	90.52	118.88	143.27
Heating Water Flow Rate	H (L/S)	0.27	0.33	0.37	0.41
	M (L/S)	0.22	0.27	0.31	0.34
	L (L/S)	0.18	0.22	0.26	0.29
Heating Water Pressure Drop	H (kPa)	51.27	72.80	86.61	100.10
	M (kPa)	39.76	56.10	67.42	76.90
	L (kPa)	30.26	41.46	52.26	61.15

ARI- 440 Standard Rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB Water inlet/outlet: +45/55°F	Heating: Entering air temperature: +68°F DB Water inlet temperature: +140°F Water flow rate as for the cooling conditions

2 Rows, 2 Pipes

	Model No	FWL2CM2-20	FWL2CM2-30	FWL2CM2-40	FWL2CM2-50	FWL2CM2-60
Air flow	H (cfm)	265	300	400	500	600
	M (cfm)	212	247	335	377	450
	L (cfm)	177	206	275	288	353
Total Cooling Capacity	H (Btu/h)	9966	11058	13993	18601	21604
	M (Btu/h)	8294	9420	12116	14710	17065
	L (Btu/h)	7099	8089	10307	11775	13925
Sensible Cooling Capacity	H (Btu/h)	6724	7474	9522	12594	14676
	M (Btu/h)	5563	6348	8225	9864	11502
	L (Btu/h)	4744	5427	6963	7850	9352
Heating Capacity	H (Btu/h)	16314	18021	22662	30580	35290
	M (Btu/h)	13618	15393	19625	24232	28089
	L (Btu/h)	11638	13208	16792	19318	22969
Water Flow Rate	H (Gpm)	2.06	2.22	2.85	3.80	4.28
	M (Gpm)	1.74	1.90	2.38	3.01	3.49
	L (Gpm)	1.43	1.59	2.06	2.38	2.85
Water Pressure Drop	H (ftH ₂ O)	6.60	7.63	10.60	5.54	6.84
	M (ftH ₂ O)	5.09	6.09	8.66	3.99	4.91
	L (ftH ₂ O)	4.11	4.93	6.90	2.92	3.70

2 Rows, 2 Pipes

	Model No	FWL2CM2-80	FWL2CM2-100	FWL2CM2-120	FWL2CM2-140
Air flow	H (cfm)	800	1001	1201	1401
	M (cfm)	618	765	924	1059
	L (cfm)	471	565	712	836
Total Cooling Capacity	H (Btu/h)	27270	33652	38942	44028
	M (Btu/h)	22116	27065	31536	35222
	L (Btu/h)	17679	21126	25529	29079
Sensible Cooling Capacity	H (Btu/h)	18703	23072	26826	30478
	M (Btu/h)	15051	18430	21570	24198
	L (Btu/h)	11946	14232	17338	19830
Heating Capacity	H (Btu/h)	44369	54028	61946	69591
	M (Btu/h)	36178	43789	50785	56451
	L (Btu/h)	29011	34471	41400	46997
Water Flow Rate	H (Gpm)	5.55	6.82	7.77	8.88
	M (Gpm)	4.44	5.39	6.34	7.13
	L (Gpm)	3.49	4.28	5.07	5.86
Water Pressure Drop	H (ftH ₂ O)	9.48	13.95	17.35	20.35
	M (ftH ₂ O)	7.06	10.28	12.74	14.88
	L (ftH ₂ O)	5.17	7.26	9.48	11.37

The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB Water inlet/outlet: +45/55°F	Heating: Entering air temperature: +68°F DB Water inlet temperature: +180°F/140°F

2+1 Rows, 4 Pipes

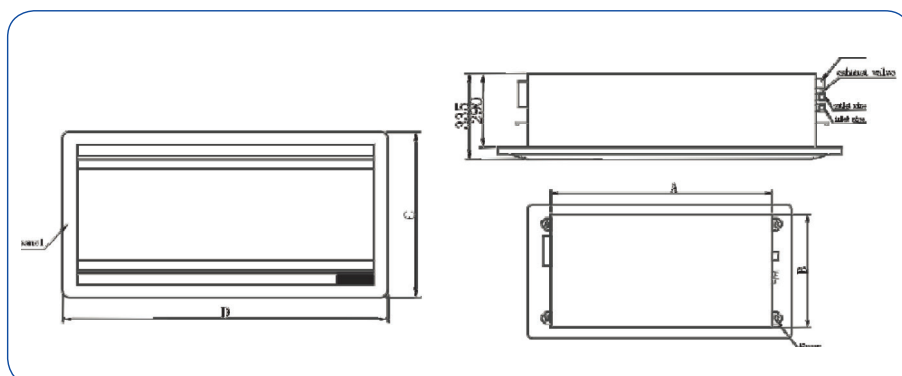
	Model No	FWL2CM21-20	FWL2CM21-30	FWL2CM21-40	FWL2CM21-50	FWL2CM21-60
Air flow	H (cfm)	265	300	400	500	600
	M (cfm)	212	247	335	377	450
	L (cfm)	177	206	275	288	353
Total Cooling Capacity	H (Btu/h)	9317	10307	13004	18976	22082
	M (Btu/h)	7782	8806	11297	14949	17372
	L (Btu/h)	6689	7577	9625	11911	14164
Sensible Cooling Capacity	H (Btu/h)	5973	6621	8464	11809	13789
	M (Btu/h)	4915	5631	7304	9249	10785
	L (Btu/h)	4198	4812	6178	7304	8737
Heating Capacity	H (Btu/h)	14608	15939	19386	29625	33720
	M (Btu/h)	12457	13891	17202	24096	27441
	L (Btu/h)	10922	12219	15017	19761	22969
Cooling Water Flow Rate	H (Gpm)	1.90	2.06	2.69	3.80	4.44
	M (Gpm)	1.59	1.74	2.22	3.01	3.49
	L (Gpm)	1.27	1.59	1.90	2.38	2.85
Cooling Water Pressure Drop	H (ftH2O)	0.79	0.79	0.95	1.43	1.74
	M (ftH2O)	0.63	0.63	0.79	1.27	1.43
	L (ftH2O)	0.48	0.63	0.79	0.95	1.11
Heating Water Flow Rate	H (Gpm)	3.75	4.33	5.98	18.84	23.32
	M (Gpm)	2.90	3.47	4.90	13.50	16.66
	L (Gpm)	2.35	2.81	3.92	9.82	12.50
Heating Water Pressure Drop	H (ftH2O)	1.23	1.39	1.82	4.01	4.79
	M (ftH2O)	0.99	1.16	1.55	3.03	3.62
	L (ftH2O)	0.83	0.97	1.28	2.31	2.84

2+1 Rows, 4 Pipes

	Model No	FWL2CM21-80	FWL2CM21-100	FWL2CM21-120	FWL2CM21-140
Air flow	H (cfm)	800	1001	1201	1401
	M (cfm)	618	765	924	1059
	L (cfm)	471	565	712	836
Total Cooling Capacity	H (Btu/h)	27987	34505	40034	45359
	M (Btu/h)	22628	27679	32321	36144
	L (Btu/h)	18055	21502	26075	29761
Sensible Cooling Capacity	H (Btu/h)	17645	21741	25324	28806
	M (Btu/h)	14164	17304	20307	22799
	L (Btu/h)	11195	13345	16280	18669
Heating Capacity	H (Btu/h)	41195	49864	56417	62526
	M (Btu/h)	34403	41434	47236	51843
	L (Btu/h)	28362	33447	39420	44062
Cooling Water Flow Rate	H (Gpm)	5.71	6.97	8.08	9.19
	M (Gpm)	4.60	5.55	6.50	7.29
	L (Gpm)	3.65	4.28	5.23	6.02
Cooling Water Pressure Drop	H (ftH2O)	2.06	2.54	2.85	3.17
	M (ftH2O)	1.74	2.06	2.38	2.54
	L (ftH2O)	1.43	1.74	1.90	2.22
Heating Water Flow Rate	H (Gpm)	32.51	47.76	58.82	70.06
	M (Gpm)	24.11	35.06	43.58	50.99
	L (Gpm)	17.55	24.62	32.25	38.81
Heating Water Pressure Drop	H (ftH2O)	6.31	8.82	10.63	12.23
	M (ftH2O)	4.93	6.97	8.33	9.46
	L (ftH2O)	3.78	5.20	6.51	7.58

Dimensional DATA-FWL2CM

Model No	A	B	C	D
FWL2CM-20	581	581	680	820
FWL2CM-30	581	581	680	820
FWL2CM-40	581	581	680	820
FWL2CM-50	590	1125	680	1345
FWL2CM-60	590	1125	680	1345
FWL2CM-80	590	1125	680	1345
FWL2CM-100	590	1698	680	1920
FWL2CM-120	590	1698	680	1920
FWL2CM-140	590	1698	680	1920



Dimensions are in mm

GENERAL DATA-FWL4CM

(Fan Coil Unit Water Cooled Low Static 4-way Cassette Ceiling Mounted)

Model No	FWL4CM-30	FWL4CM-40	FWL4CM-50	FWL4CM-60	FWL4CM-80	FWL4CM-100	FWL4CM-120	FWL4CM-140	FWL4CM-170	
Nominal Air Volume (cfm)	300	400	500	600	800	1000	1200	1400	1700	
Coil	Copper tube									
	3/ 8" (9.52 mm) OD seamless copper tube									
	Fins									
	Hi-efficiency wavy corrugated aluminium blue fins									
Fins per Inc(fpi)	12	12	12	12	12	12	12	12	12	
Coil Length (mm)	1480	1480	1790	1790	1790	2200	2200	2200	2520	
Coil Height (mm)	200	200	225	225	225	250	250	250	250	
Fan	Centrifugal backward curve, ABS wheel, direct driven									
Fan type	Centrifugal backward curve, ABS wheel, direct driven									
Quantity (No)	1	1	1	1	1	1	1	1	1	
AC Motor	Voltage (V)									
	220- 240V / 1 Ph / 50- 60Hz ,110- 127V / 1 Ph / 50Hz									
	Motor Speed									
	3 speed									
Quantity (No)	1	1	1	1	1	1	1	1	1	
	Max Power Input (W)									
	46	60	85	106	147	217	286	308	330	
EC Motor	Voltage (V)									
	220- 240V / 1 Ph / 50- 60Hz ,110- 127V / 1 Ph / 50Hz									
Quantity (No)	1	1	1	1	1	1	1	1	1	
	Max Power Input (W)									
	30	40	50	60	80	88	200	228	258	
Fan sound level @ 1 mtr	H (dBA)									
	38	43	46	45	50	51	52	55	58	
	M (dBA)									
	36	41	44	42	47	49	50	49	52	
	L (dBA)									
	34	38	39	39	44	47	48	47	50	
Water pipe	Cooling coil									
	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	
	Heating coil (4 pipes unit)									
	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP	
Drain pipe	3/4"MTP									
Dimension	Length (mm)									
	720	720	850	850	850	1000	1000	1000	1200	
	Width (mm)									
	720	720	850	850	850	1000	1000	1000	1200	
	Height (mm)									
	370	370	370	370	370	370	370	370	370	
Weight	Net Weight (kg)									
	25	25	29	29	29	37	37	37	59	

Performance DATA-FWL4CM

The performance data lists regular EU standard, ARI 440 standard and District Cooling	
Standard rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +27°CDB; +19.5°C WB	Heating: Entering air temperature: +20°C DB
Water inlet/outlet: +7/12°C	Water inlet temperature: +50°C
	Water flow rate as for the cooling conditions

2 Rows, 2 Pipes

	Model No	FWL4CM2-30	FWL4CM2-40	FWL4CM2-50	FWL4CM2-60	FWL4CM2-80
Air flow	H (cfm)	320	366	509	667	819
	M (cfm)	284	304	424	571	619
	L (cfm)	181	188	365	437	440
Total Cooling Capacity	H (kW)	3.66	3.91	5.42	6.75	7.96
	M (kW)	3.32	3.36	4.67	5.95	6.35
	L (kW)	2.27	2.26	4.13	4.79	4.81
Sensible Cooling Capacity	H (kW)	2.44	2.66	3.69	4.63	5.50
	M (kW)	2.21	2.28	3.16	4.07	4.35
	L (kW)	1.49	1.51	2.79	3.25	3.26
Heating Capacity	H (kW)	4.30	4.73	6.54	8.07	9.46
	M (kW)	3.92	4.07	5.64	7.15	7.61
	L (kW)	2.63	2.77	5.01	5.79	5.82
Water Flow Rate	H (L/S)	0.17	0.19	0.26	0.32	0.38
	M (L/S)	0.16	0.16	0.22	0.28	0.30
	L (L/S)	0.11	0.11	0.20	0.23	0.23
Water Pressure Drop	H (kPa)	33.89	14.03	15.16	20.58	25.94
	M (kPa)	29.57	11.35	12.29	17.27	18.91
	L (kPa)	17.33	6.50	10.34	12.71	12.82

2 Rows, 2 Pipes

	Model No	FWL4CM2-100	FWL4CM2-120	FWL4CM2-140	FWL4CM2-170
Air flow	H (cfm)	1011	1165	1401	1701
	M (cfm)	921	995	1089	1236
	L (cfm)	792	836	942	995
Total Cooling Capacity	H (kW)	10.15	11.37	13.17	16.11
	M (kW)	9.41	10.02	10.77	12.47
	L (kW)	8.33	8.70	9.59	10.46
Sensible Cooling Capacity	H (kW)	6.96	7.83	9.11	11.08
	M (kW)	6.43	6.86	7.40	8.50
	L (kW)	5.67	5.93	6.56	7.09
Heating Capacity	H (kW)	12.00	13.38	15.36	18.51
	M (kW)	11.18	11.87	12.70	14.57
	L (kW)	9.95	10.38	11.38	12.32
Water Flow Rate	H (L/S)	0.48	0.54	0.63	0.77
	M (L/S)	0.45	0.48	0.51	0.60
	L (L/S)	0.40	0.42	0.46	0.50
Water Pressure Drop	H (kPa)	29.17	34.22	42.02	63.85
	M (kPa)	26.23	28.62	31.69	44.59
	L (kPa)	22.10	23.50	26.92	34.84

The following rating conditions are used:

Cooling: Entering air temperature: +27°C DB; +19.5°C WB

Heating: Entering air temperature: +20°C DB

Water inlet/outlet: +7/12°C

Water inlet temperature: +70°C/60°C

2+1 Rows, 4 Pipes

	Model No	FWL4CM21-30	FWL4CM21-40	FWL4CM21-50	FWL4CM21-60	FWL4CM21-80
Air flow	H (cfm)	320	366	509	667	819
	M (cfm)	284	304	424	571	619
	L (cfm)	181	188	365	437	440
Total Cooling Capacity	H (kW)	2.92	3.25	4.53	5.59	6.55
	M (kW)	2.66	2.81	3.92	4.95	5.27
	L (kW)	1.82	1.88	3.48	4.01	4.03
Sensible Cooling Capacity	H (kW)	1.90	2.13	2.97	3.70	4.38
	M (kW)	1.73	1.83	2.55	3.26	3.48
	L (kW)	1.26	1.30	2.25	2.62	2.63
Heating Capacity	H (kW)	3.52	3.85	5.41	6.45	7.36
	M (kW)	3.26	3.41	4.79	5.83	6.14
	L (kW)	2.39	2.46	4.33	4.89	4.91
Cooling Water Flow Rate	H (L/S)	0.14	0.15	0.22	0.27	0.31
	M (L/S)	0.13	0.13	0.19	0.24	0.25
	L (L/S)	0.09	0.09	0.17	0.19	0.19
Cooling Water Pressure Drop	H (kPa)	15.43	17.93	15.65	21.04	26.29
	M (kPa)	13.54	14.62	12.78	17.75	19.39
	L (kPa)	8.14	8.53	10.82	13.21	13.32
Heating Water Flow Rate	H (L/S)	0.08	0.09	0.13	0.15	0.18
	M (L/S)	0.08	0.08	0.11	0.14	0.15
	L (L/S)	0.06	0.06	0.10	0.12	0.12
Heating Water Pressure Drop	H (kPa)	9.24	10.44	11.55	14.69	17.59
	M (kPa)	8.30	8.83	9.78	12.80	13.74
	L (kPa)	5.43	5.65	8.52	10.05	10.11

2+1 Rows, 4 Pipes

	Model No	FWL4CM21-100	FWL4CM21-120	FWL4CM21-140	FWL4CM21-170
Air flow	H (cfm)	1011	1165	1401	1701
	M (cfm)	921	995	1089	1236
	L (cfm)	792	836	942	995
Total Cooling Capacity	H (kW)	8.42	9.40	10.84	13.32
	M (kW)	7.83	8.32	8.92	10.39
	L (kW)	6.95	7.26	7.97	8.76
Sensible Cooling Capacity	H (kW)	5.53	6.20	7.19	8.76
	M (kW)	5.12	5.45	5.87	6.76
	L (kW)	4.53	4.73	5.21	5.67
Heating Capacity	H (kW)	9.31	10.19	11.44	13.80
	M (kW)	8.76	9.21	9.76	11.28
	L (kW)	7.95	8.23	8.89	9.81
Cooling Water Flow Rate	H (L/S)	0.40	0.45	0.52	0.64
	M (L/S)	0.37	0.40	0.43	0.50
	L (L/S)	0.33	0.35	0.38	0.42
Cooling Water Pressure Drop	H (kPa)	45.94	53.65	65.44	100.10
	M (kPa)	41.47	45.14	49.82	70.66
	L (kPa)	35.12	37.27	42.49	55.59
Heating Water Flow Rate	H (L/S)	0.22	0.24	0.27	0.33
	M (L/S)	0.21	0.22	0.23	0.27
	L (L/S)	0.19	0.20	0.21	0.23
Heating Water Pressure Drop	H (kPa)	19.87	22.49	26.34	39.02
	M (kPa)	18.30	19.59	21.20	29.60
	L (kPa)	16.02	16.81	18.67	24.45

ARI- 440 Standard Rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB	Heating: Entering air temperature: +68°F DB
Water inlet/outlet: +45/55°F	Water inlet temperature: +140°F
	Water flow rate as for the cooling conditions

2 Rows, 2 Pipes

	Model No	FWL4CM2-30	FWL4CM2-40	FWL4CM2-50	FWL4CM2-60	FWL4CM2-80
Air flow	H (cfm)	320	366	509	667	819
	M (cfm)	284	304	424	571	619
	L (cfm)	181	188	365	437	440
Total Cooling Capacity	H (Btu/h)	11809	12492	17372	21536	25359
	M (Btu/h)	10717	10751	14949	19010	20273
	L (Btu/h)	7338	7270	13242	15324	15427
Sensible Cooling Capacity	H (Btu/h)	7952	8635	12014	15017	17816
	M (Btu/h)	7201	7406	10273	13208	14130
	L (Btu/h)	4881	4915	9044	10546	10614
Heating Capacity	H (Btu/h)	19318	21126	29249	36007	42151
	M (Btu/h)	17611	18260	25290	31980	34096
	L (Btu/h)	12014	12253	22423	25836	26109
Water Flow Rate	H (Gpm)	2.38	2.54	3.49	4.28	5.07
	M (Gpm)	2.22	2.22	3.01	3.80	4.12
	L (Gpm)	1.43	1.43	2.69	3.01	3.17
Water Pressure Drop	H (ftH ₂ O)	9.17	3.75	4.05	5.48	6.89
	M (ftH ₂ O)	8.01	3.03	3.29	4.61	5.04
	L (ftH ₂ O)	4.48	1.69	2.78	3.41	3.43

2 Rows, 2 Pipes

	Model No	FWL4CM2-100	FWL4CM2-120	FWL4CM2-140	FWL4CM2-170
Air flow	H (cfm)	1011	1165	1401	1701
	M (cfm)	921	995	1089	1236
	L (cfm)	792	836	942	995
Total Cooling Capacity	H (Btu/h)	32424	36280	41946	51468
	M (Btu/h)	30103	32014	34403	39966
	L (Btu/h)	26690	27850	30649	33584
Sensible Cooling Capacity	H (Btu/h)	22594	25393	29522	35973
	M (Btu/h)	20888	22287	23993	27645
	L (Btu/h)	18430	19283	21297	23072
Heating Capacity	H (Btu/h)	53652	59728	68465	82595
	M (Btu/h)	49932	53072	56826	65154
	L (Btu/h)	44471	46314	50854	55188
Water Flow Rate	H (Gpm)	6.50	7.29	8.40	10.30
	M (Gpm)	6.02	6.50	6.97	8.08
	L (Gpm)	5.39	5.55	6.18	6.82
Water Pressure Drop	H (ftH ₂ O)	7.78	9.14	11.16	17.03
	M (ftH ₂ O)	7.01	7.64	8.45	11.94
	L (ftH ₂ O)	5.91	6.29	7.19	9.35

The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB	Heating: Entering air temperature: +68°F DB
Water inlet/outlet: +45/55°F	Water inlet temperature: +180°F/140°F
	Water flow rate as for the cooling conditions

2+1 Rows, 4 Pipes

	Model No	FWL4CM21-30	FWL4CM21-40	FWL4CM21-50	FWL4CM21-60	FWL4CM21-80
Air flow	H (cfm)	320	366	509	667	819
	M (cfm)	284	304	424	571	619
	L (cfm)	181	188	365	437	440
Total Cooling Capacity	H (Btu/h)	9249	10273	14335	17611	20615
	M (Btu/h)	8483	8908	12423	15632	16621
	L (Btu/h)	5802	6007	11058	12696	12765
Sensible Cooling Capacity	H (Btu/h)	6143	6860	9591	11946	14096
	M (Btu/h)	5597	5904	8259	10546	11229
	L (Btu/h)	4061	4232	7304	8464	8498
Heating Capacity	H (Btu/h)	11946	13004	18260	21570	24471
	M (Btu/h)	11092	11570	16246	19591	20615
	L (Btu/h)	8259	8464	14744	16553	16621
Cooling Water Flow Rate	H (Gpm)	1.90	2.06	2.85	3.49	4.12
	M (Gpm)	1.74	1.74	2.54	3.17	3.33
	L (Gpm)	1.11	1.27	2.22	2.54	2.54
Cooling Water Pressure Drop	H (ftH ₂ O)	4.07	4.72	4.11	5.51	6.86
	M (ftH ₂ O)	3.58	3.85	3.37	4.66	5.08
	L (ftH ₂ O)	2.17	2.27	2.86	3.48	3.51
Heating Water Flow Rate	H (Gpm)	0.63	0.63	0.95	1.11	1.27
	M (Gpm)	0.48	0.63	0.79	0.95	0.95
	L (Gpm)	0.48	0.48	0.79	0.79	0.79
Heating Water Pressure Drop	H (ftH ₂ O)	1.03	1.16	1.28	1.61	1.91
	M (ftH ₂ O)	0.93	0.99	1.09	1.41	1.51
	L (ftH ₂ O)	0.62	0.65	0.95	1.12	1.12

2+1 Rows, 4 Pipes

	Model No	FWL4CM21-100	FWL4CM21-120	FWL4CM21-140	FWL4CM21-170
Air flow	H (cfm)	1011	1165	1401	1701
	M (cfm)	921	995	1089	1236
	L (cfm)	792	836	942	995
Total Cooling Capacity	H (Btu/h)	26656	29727	34198	42185
	M (Btu/h)	24813	26348	28226	33004
	L (Btu/h)	22082	23038	25256	27884
Sensible Cooling Capacity	H (Btu/h)	17850	20034	23208	28328
	M (Btu/h)	16553	17645	18976	21911
	L (Btu/h)	14642	15324	16860	18362
Heating Capacity	H (Btu/h)	31673	34540	38635	47168
	M (Btu/h)	29898	31365	33140	38840
	L (Btu/h)	27236	28157	30307	33925
Cooling Water Flow Rate	H (Gpm)	5.39	6.02	6.82	8.56
	M (Gpm)	5.07	5.23	5.71	6.66
	L (Gpm)	4.44	4.60	5.07	5.55
Cooling Water Pressure Drop	H (ftH ₂ O)	12.10	14.10	17.17	26.37
	M (ftH ₂ O)	10.93	11.89	13.11	18.70
	L (ftH ₂ O)	9.29	9.85	11.21	14.75
Heating Water Flow Rate	H (Gpm)	1.59	1.74	1.90	2.38
	M (Gpm)	1.43	1.59	1.59	1.90
	L (Gpm)	1.43	1.43	1.59	1.74
Heating Water Pressure Drop	H (ftH ₂ O)	2.22	2.51	2.92	4.40
	M (ftH ₂ O)	2.05	2.19	2.37	3.37
	L (ftH ₂ O)	1.81	1.89	2.09	2.80

District Cooling Standard Rating

The following rating conditions are used:

Cooling: Entering air temperature: +24.4 °CDB; +17.2 °CWB

Water inlet/outlet: +5.5/14.4°C

2 Rows, 2 Pipes

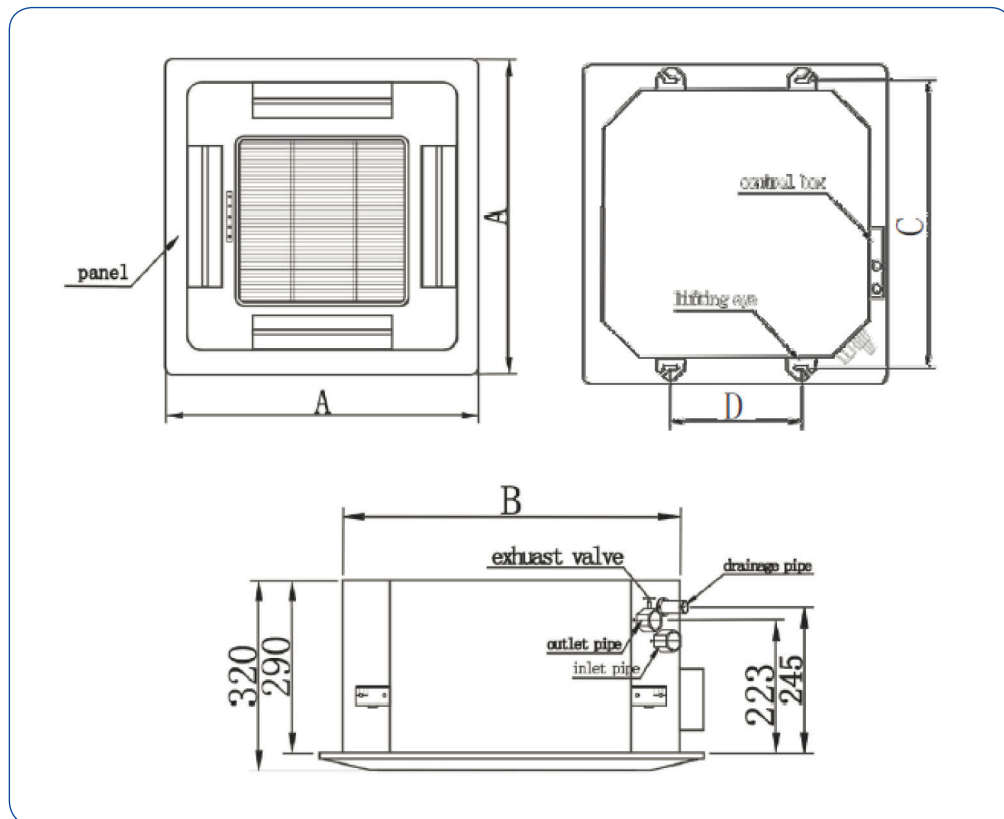
	Model No	FWL4CM2-30	FWL4CM2-40	FWL4CM2-50	FWL4CM2-60	FWL4CM2-80
Air flow	H (cfm)	320	366	509	667	819
	M (cfm)	284	304	424	571	619
	L (cfm)	181	188	365	437	440
Total Cooling Capacity	H (kW)	2.44	2.42	3.37	4.10	4.76
	M (kW)	1.56	1.47	2.94	3.66	3.88
	L (kW)	1.42	1.62	2.63	3.01	3.02
Sensible Cooling Capacity	H (kW)	2.00	2.11	2.94	3.66	4.32
	M (kW)	1.81	1.82	2.53	3.23	3.45
	L (kW)	1.24	1.22	2.24	2.59	2.61
Water Flow Rate	H (L/S)	0.07	0.06	0.09	0.11	0.13
	M (L/S)	0.06	0.06	0.08	0.10	0.10
	L (L/S)	0.04	0.04	0.07	0.08	0.08
Water Pressure Drop	H (kPa)	8.57	3.19	3.46	4.56	5.63
	M (kPa)	7.54	2.63	2.86	3.89	4.23
	L (kPa)	4.58	1.59	2.44	2.95	2.97

2 Rows, 2 Pipes

	Model No	FWL4CM2-100	FWL4CM2-120	FWL4CM2-140	FWL4CM2-170
Air flow	H (cfm)	1011	1165	1401	1701
	M (cfm)	921	995	1089	1236
	L (cfm)	792	836	942	995
Total Cooling Capacity	H (kW)	6.24	6.92	7.91	9.90
	M (kW)	5.82	6.16	6.59	7.83
	L (kW)	5.21	5.42	5.92	6.66
Sensible Cooling Capacity	H (kW)	5.52	6.19	7.18	8.80
	M (kW)	5.12	5.45	5.86	6.80
	L (kW)	4.52	4.73	5.21	5.70
Water Flow Rate	H (L/S)	0.17	0.19	0.21	0.27
	M (L/S)	0.16	0.17	0.18	0.21
	L (L/S)	0.14	0.15	0.16	0.18
Water Pressure Drop	H (kPa)	6.56	7.59	9.15	14.38
	M (kPa)	5.96	6.45	7.08	10.34
	L (kPa)	5.10	5.39	6.10	8.25

Dimensional DATA-FWL4CM

Model No	A	B	C	D
FWL4CM-30	680	580	614	424
FWL4CM-40	680	580	614	424
FWL4CM-50	830	705	737	338
FWL4CM-60	830	705	737	338
FWL4CM-80	830	705	737	338
FWL4CM-100	980	832	864	416
FWL4CM-120	980	832	864	416
FWL4CM-140	980	832	864	416
FWL4CM-170	1140	960	992	488



Dimensions are in mm

GENERAL DATA-FWL6CM

(Fan Coil Unit Water Cooled Low Static 6-way Cassette Ceiling Mounted)

	Model No	FWL6CM-50	FWL6CM-60	FWL6CM-80	FWL6CM-100
	Nominal Air Volume (cfm)	500	600	800	1000
Coil	Copper tube	3/8"(9.52mm) OD seamless copper tube			
	Fins	Hi-efficiency wavy corrugated aluminium blue fins			
	Fins per Inch (fpi)	12	12	12	12
	Coil Length (mm)	2500	2500	2500	2500
	Coil Height (mm)	225	225	225	225
Fan	Fan type	Centrifugal backward curve, ABS wheel,direct driven			
	Quantity (No)	2	2	2	2
Motor	Voltage (V)	220-240V /1Ph/50-60Hz,110-127V /1Ph/50Hz			
	Motor Speed	3 speed			
	Quantity (No)	2	2	2	2
	Max Power Input (W)	80	110	122	160
Fan sound level @ 1 mtr	H (dBA)	43	45	49	50
	M (dBA)	40	42	46	48
	L (dBA)	38	39	43	46
Water pipe	Cooling coil	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
	Heating coil (4 pipes unit)	3/4"FTP	3/4"FTP	3/4"FTP	3/4"FTP
Drain pipe		3/4"MTP	3/4"MTP	3/4"MTP	3/4"MTP
Dimension	Length (mm)	1380	1380	1380	1380
	Width (mm)	820	820	820	820
	Height (mm)	370	370	370	370
Weight	Net Weight (kg)	42	42	42	42

Performance DATA-FWL6CM

Standard rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°C WB	Heating: Entering air temperature: +20°C DB
Water inlet/outlet: +7/12°C	Water inlet temperature: +50°C
	Water flow rate as for the cooling conditions

2 Rows, 2 Pipes

	Model No	FWL6CM2-50	FWL6CM2-60	FWL6CM2-80	FWL6CM2-100
Air flow	H (cfm)	500	600	800	1001
	M (cfm)	356	459	618	795
	L (cfm)	294	353	471	593
Total Cooling Capacity	H (kW)	6.38	7.44	9.49	11.42
	M (kW)	4.75	5.92	7.63	9.43
	L (kW)	4.04	4.73	6.05	7.37
Sensible Cooling Capacity	H (kW)	4.19	4.91	6.30	7.63
	M (kW)	3.10	3.89	5.04	6.26
	L (kW)	2.62	3.08	3.98	4.86
Heating Capacity	H (kW)	7.01	8.16	10.26	12.23
	M (kW)	5.27	6.53	8.83	10.20
	L (kW)	4.47	5.24	6.67	8.07
Water Flow Rate	H (L/S)	0.30	0.36	0.45	0.55
	M (L/S)	0.23	0.28	0.36	0.45
	L (L/S)	0.19	0.23	0.29	0.35
Water Pressure Drop	H (kPa)	26.55	33.00	46.46	60.15
	M (kPa)	17.59	23.96	34.15	45.96
	L (kPa)	13.98	17.45	24.70	32.56

The following rating conditions are used:	
Cooling: Entering air temperature: +27°C DB; +19.5°C WB	Heating: Entering air temperature: +20°C DB
Water inlet/outlet: +7/12°C	Water inlet temperature: +70°C/60°C

2+1 Rows, 4 Pipes

	Model No	FWL6CM21-50	FWL6CM21-60	FWL6CM21-80	FWL6CM21-100
Air flow	H (cfm)	500	600	800	1000
	M (cfm)	356	459	618	795
	L (cfm)	294	353	471	593
Total Cooling Capacity	H (kW)	5.04	5.84	7.35	8.77
	M (kW)	3.81	4.70	5.98	7.31
	L (kW)	3.26	3.79	4.8	5.79
Sensible Cooling Capacity	H (kW)	3.20	3.73	4.73	5.68
	M (kW)	2.40	2.98	3.82	4.70
	L (kW)	2.04	2.38	3.04	3.69
Heating Capacity	H (kW)	6.19	7.00	8.48	9.81
	M (kW)	4.88	5.83	7.14	8.44
	L (kW)	4.27	4.86	5.93	6.94
Cooling Water Flow Rate	H (L/S)	0.24	0.28	0.35	0.42
	M (L/S)	0.18	0.22	0.29	0.35
	L (L/S)	0.16	0.18	0.23	0.28
Cooling Water Pressure Drop	H (kPa)	25.43	31.25	43.16	55.29
	M (kPa)	17.20	23.05	32.29	42.82
	L (kPa)	13.82	17.06	23.73	30.83
Heating Water Flow Rate	H (L/S)	0.15	0.17	0.20	0.23
	M (L/S)	0.12	0.14	0.17	0.20
	L (L/S)	0.10	0.12	0.14	0.17
Heating Water Pressure Drop	H (kPa)	9.69	11.47	14.91	18.20
	M (kPa)	7.01	8.94	11.78	14.81
	L (kPa)	5.83	6.96	9.15	11.35

ARI- 440 Standard Rating	
The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB	Heating: Entering air temperature: +68°F DB
Water inlet/outlet: +45/55°F	Water inlet temperature: +140°F
	Water flow rate as for the cooling conditions

2 Rows, 2 Pipes

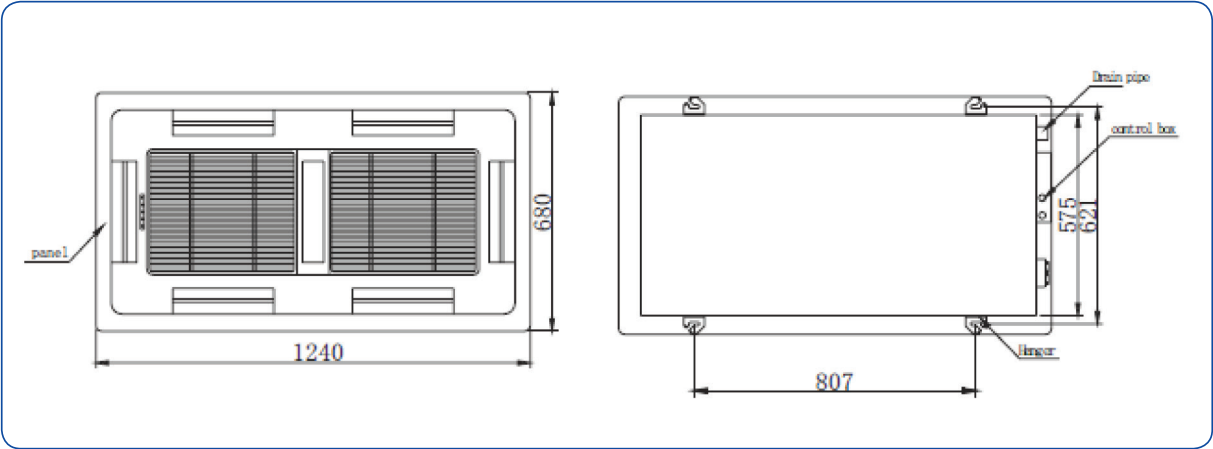
	Model No	FWL6CM2-50	FWL6CM2-60	FWL6CM2-80	FWL6CM2-100
Air flow	H (cfm)	500	600	800	1001
	M (cfm)	356	459	618	795
	L (cfm)	294	353	471	593
Total Cooling Capacity	H (Btu/h)	20683	24096	30649	36860
	M (Btu/h)	15461	19215	24710	30478
	L (Btu/h)	13140	15359	19659	23891
Sensible Cooling Capacity	H (Btu/h)	13720	16041	20580	24881
	M (Btu/h)	10171	12730	16451	20444
	L (Btu/h)	8601	10102	13004	15905
Heating Capacity	H (Btu/h)	31536	36656	46076	54847
	M (Btu/h)	23720	29352	37441	45837
	L (Btu/h)	20171	23618	30000	36246
Water Flow Rate	H (Gpm)	4.12	4.91	6.18	7.45
	M (Gpm)	3.17	3.8	4.91	6.18
	L (Gpm)	2.69	3.17	3.96	4.76
Water Pressure Drop	H (ftH2O)	7.24	8.97	12.57	16.27
	M (ftH2O)	4.81	6.53	9.29	12.46
	L (ftH2O)	3.83	4.77	6.73	8.85

The following rating conditions are used:	
Cooling: Entering air temperature: +80°F DB; +67°F WB	Heating: Entering air temperature: +68°F DB
Water inlet/outlet: +45/55°F	Water inlet temperature: +180°F/140°F
Water inlet/outlet: +7/12°F	

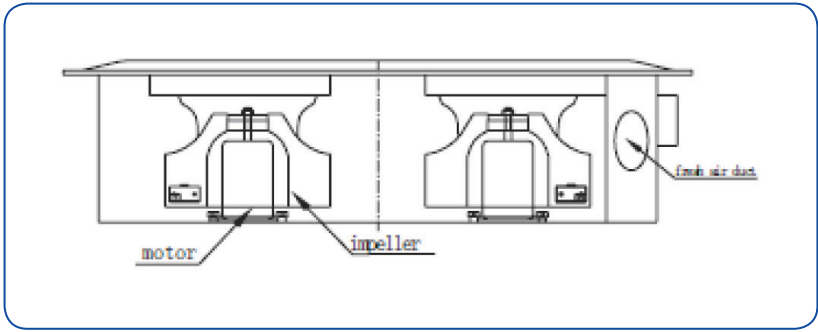
2+1 Rows, 4 Pipes

	Model No	FWL6CM21-50	FWL6CM21-60	FWL6CM21-80	FWL6CM21-100
Air flow	H (cfm)	500	600	800	1001
	M (cfm)	356	459	618	795
	L (cfm)	294	353	471	593
Total Cooling Capacity	H (Btu/h)	16143	18669	23447	27918
	M (Btu/h)	12253	15051	19113	23311
	L (Btu/h)	10512	12184	15393	18498
Sensible Cooling Capacity	H (Btu/h)	10376	12082	15324	18396
	M (Btu/h)	7782	9659	12389	15256
	L (Btu/h)	6655	7748	9864	11980
Heating Capacity	H (Btu/h)	21741	24505	29454	33891
	M (Btu/h)	17304	20546	24949	29318
	L (Btu/h)	15222	17236	20888	24301
Cooling Water Flow Rate	H (Gpm)	3.33	3.8	4.76	5.55
	M (Gpm)	2.54	3.01	3.8	4.76
	L (Gpm)	2.06	2.38	3.17	3.8
Cooling Water Pressure Drop	H (ftH ₂ O)	6.8	8.34	11.48	14.67
	M (ftH ₂ O)	4.62	6.18	8.62	11.39
	L (ftH ₂ O)	3.72	4.59	6.36	8.24
Heating Water Flow Rate	H (Gpm)	1.11	1.27	1.43	1.74
	M (Gpm)	0.79	0.95	1.27	1.43
	L (Gpm)	0.79	0.79	1.11	1.27
Heating Water Pressure Drop	H (kPa)	9.69	11.47	14.91	18.20
	M (kPa)	7.01	8.94	11.78	14.81
	L (kPa)	5.83	6.96	9.15	11.35

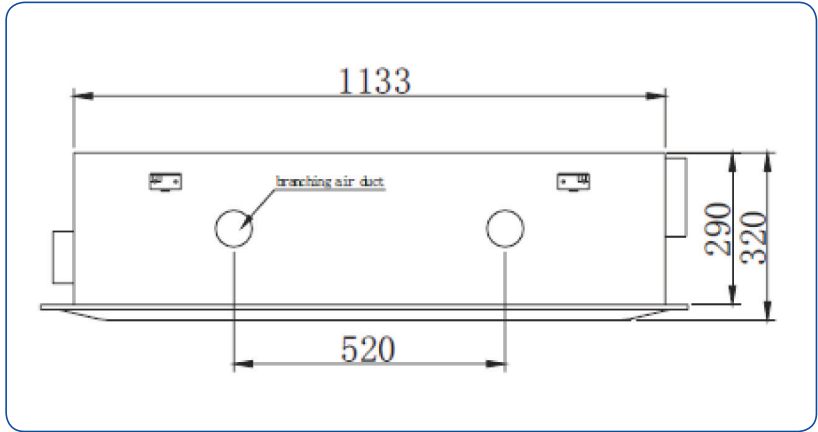
Dimensional DATA-FWL6CM



Dimensions are in mm



Dimensions are in mm



Dimensions are in mm

General Data - FWLWM(Fan Coil Unit Water Cooled Low Static Wall Mounted)

Model No	FWLWM2-20	FWLWM2-30	FWLWM2-40	FWLWM2-50	FWLWM2-60	FWLWM2-80	
Nominal Air Volume (cfm)	200	300	400	500	600	800	
Coil	Copper tube						3/8"(9.52mm)OD seamless copper tube
	Fins						Hi-efficiency aluminium blue fins
	Fins per Inch (fpi)	14	14	14	14	14	14
Fan	Fan type						Cross flow, direct driven
	Quantity (No)	1	1	1	1	1	1
Motor	Voltage (V)						220-240V/1Ph/50-60HZ,110-127V/1Ph/50HZ
	Motor Speed						3-speed AC or EC Motor
	Quantity (No)	1	1	1	1	1	1
	Power Input EC (W) (H/M/L)	10/8/6	13/10/8	20/13/10	30/20/13	45/24/18	55/34/22
	Power Input AC (W) (H/M/L)	26/23/21	40/34/30	42/36/29	63/47/36	75/64/45	90/72/55
Fan sound level @ 1 mtr	H (dBA)	37	40	42	46	47	49
	M (dBA)	34	37	40	43	41	45
	L (dBA)	31	34	37	40	38	41
Water pipe	Cooling coil	1/2"FTP	1/2"FTP	1/2"FTP	1/2"FTP	1/2"FTP	1/2"FTP
Drain pipe		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Dimension	Length (mm)	875	875	1115	1115	1115	1250
	Width (mm)	340	340	385	385	385	360
	Height (mm)	290	290	315	315	315	320
Weight	Net Weight (kg)	10	10	17	17	17	24

Performance Data - FWLWM

The following rating conditions are used:

Cooling: Entering air temperature: +27°C DB; +19.5°C WB

Heating: Entering air temperature: +20°C DB

Water inlet/outlet: +7/12°C

Water inlet temperature: +60°C

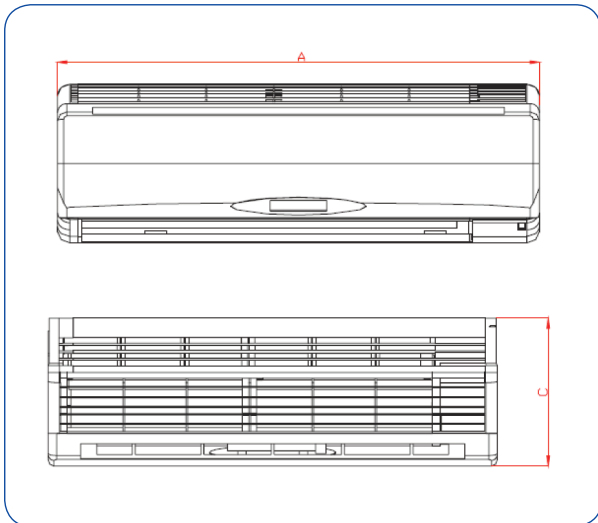
2 Rows, 2 Pipes

	Model No	FWLWM2-20	FWLWM2-30	FWLWM2-40	FWLWM2-50	FWLWM2-60	FWLWM2-80
Air flow	H (M3/H)	345	519	668	826	1017	1340
	M (M3/H)	297	447	543	694	902	1100
	L (M3/H)	251	384	385	494	640	750
Total Cooling Capacity	H (kW)	1.98	2.77	3.13	3.79	4.73	6.54
	M (kW)	1.80	2.27	2.64	3.45	4.22	5.23
	L (kW)	1.42	2.10	2.00	2.62	3.42	4.33
Sensible Cooling Capacity	H (kW)	1.43	1.99	2.52	3.17	3.67	4.63
	M (kW)	1.25	1.70	1.96	2.64	2.67	4.10
	L (kW)	0.95	1.42	1.56	1.77	1.88	2.98
Heating Capacity	H (kW)	3.01	4.21	4.75	5.76	7.19	9.94
	M (kW)	2.74	3.45	4.01	5.24	6.41	7.95
	L (kW)	2.16	3.19	3.04	3.98	5.20	6.58
Water Flow Rate	H (L/H)	340	476	537	651	779	1124
	M (L/H)	309	389	453	593	725	809
	L (L/H)	244	361	343	450	588	744
Water Pressure Drop	H (kPa)	13.40	23.40	26.00	40.00	45.00	42.00
	M (kPa)	10.70	20.70	18.80	34.00	39.00	36.00
	L (kPa)	7.80	18.70	11.30	20.00	34.00	29.00

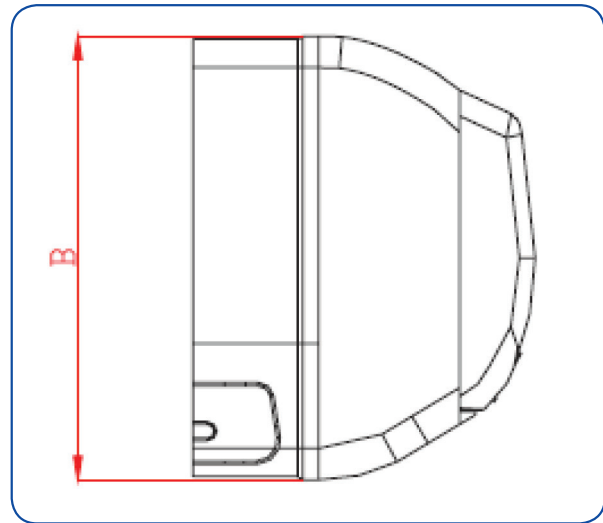
Note: Air flow is tested in the condition that the fan coil heat exchanger is dry

Dimensional Data - FWLWM

Model No	A	B	C
FWLWM2-20	784	283	218
FWLWM2-30	784	283	218
FWLWM2-40	1050	318	237
FWLWM2-50	1050	318	237
FWLWM2-60	1050	318	237
FWLWM2-80	1178	340	250



Dimensions are in mm



Dimensions are in mm



For more information, please contact:

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