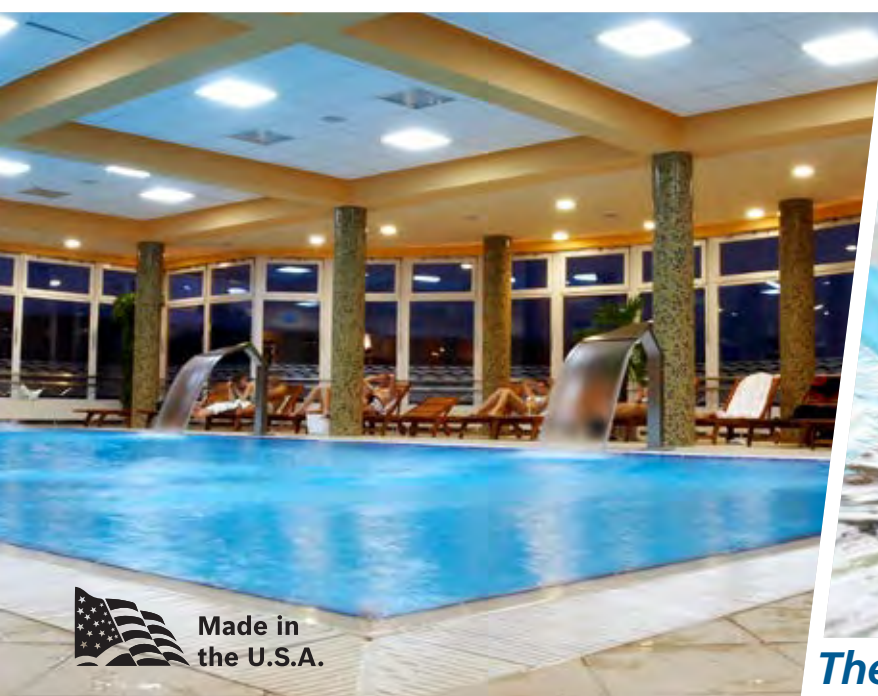




DXAIR Indoor Pool Dehumidification Systems

Stainless Steel Series 2-20 Tons



**Made in
the U.S.A.**

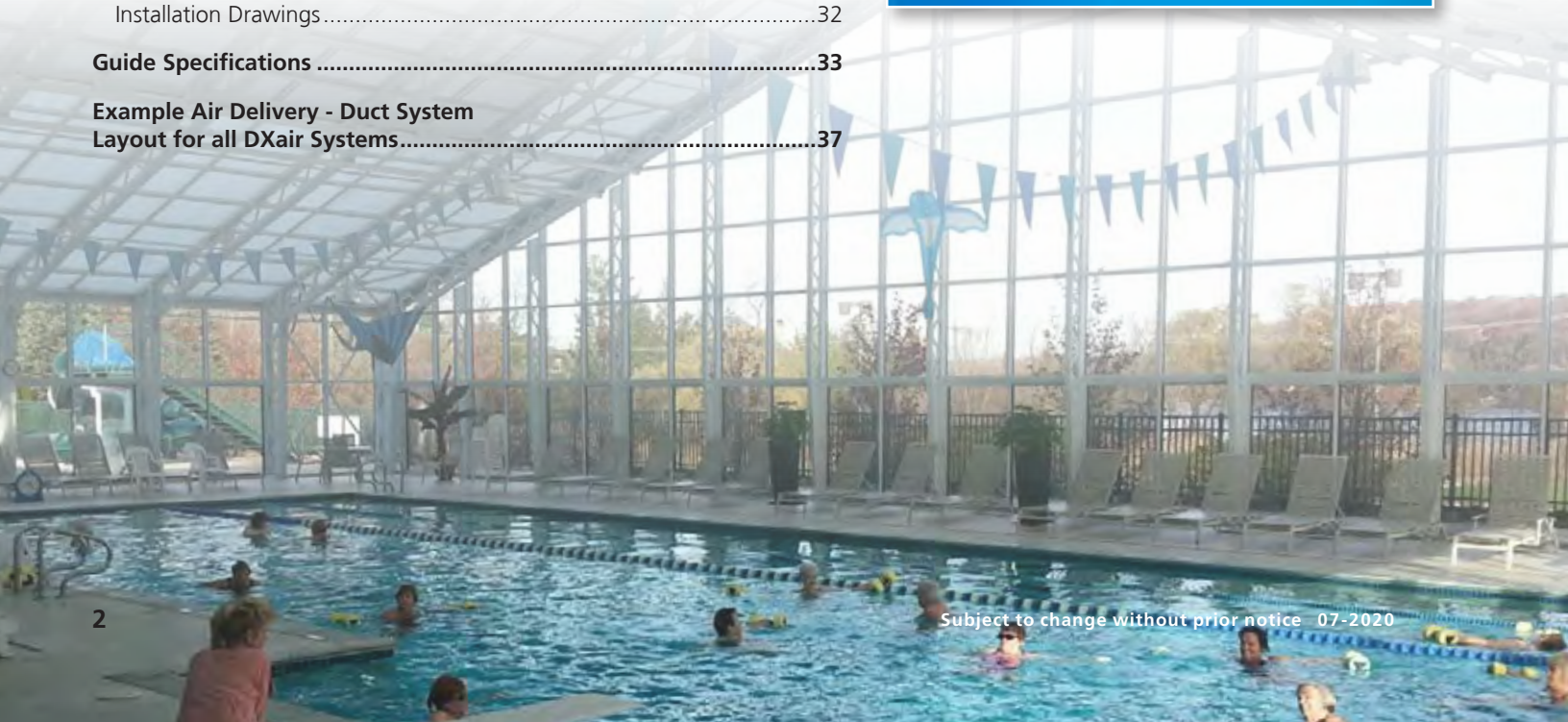


The perfect balance of water and air.

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DXAIR STAINLESS STEEL POOL DEHUMIDIFIERS

DXair currently offers the industry's only complete line of high grade 304 Stainless Steel indoor pool dehumidification systems. Our packaged heat recovery dehumidification system includes cooling and pool heat recovery/heat reclaim. These highly efficient units not only reduce operating costs, but contribute to reducing carbon dioxide emissions, a leading cause of global warming.

Featuring:

- High Grade Stainless Steel cabinet
- **NEW AQUAMETRY BY DXAIR FOR HOTEL- HOSPITALITY APPLICATIONS**
(with optional domestic hot water heating option).
- Non-Reversing Geothermal based systems
- New TAC Models (Take Apart Construction, up to 20 tons that fit through a 36" doorway)
- Up to 18 tons on single phase
- Lowest industry refrigerant capacity (Green/LEED)
- Smallest footprint in the industry
- Many units can be built with high CFM capabilities ranging from 3000 CFM to 5000 CFM.
- Cleanable evaporator coils (no 6 or 8-row coils used)
- Copeland® scroll compressors
- Specified optional for outdoor remote condensers
- RRS (reduced refrigeration systems) with fluid coolers
- Cupronickel heat exchangers for pool heat recovery/heat reclaim
- Non-ozone depleting R-410A refrigerant
- All panels removable for easy service
- Large blowers can be removed for smaller doorways and re-installation
- All air coils ElectroFin coated
- Bidirectional expansion valve
- Corrosion-proof, stainless steel drain pan
- ETL Certified to UL & CSA Standards
- Made in the USA
- Fault retry to eliminate nuisance service calls
- DXair exclusive MAX-evap included
- Extended unit warranty

TO REQUEST A QUOTE, VISIT:

 dxair.com/request-a-quote

SS SERIES MODELS AVAILABLE

Standard	Tonnage	Standard Airflow CFM	Optional Airflows, CFM	
			High	Ultra
DVA-024	2	800	N/A	N/A
DVA-041	3	1200	1400	N/A
DVA-053	4	1600	2000	N/A
DVA-061	5	2000	3000, 3200, 3600, 4000 ¹	5000
DVA-073	6	2400	3000, 3200, 3600, 4000 ¹	5000
DVA-097	8	3200	3600, 4000 ¹	5000
DVA-110	9	3600	4000	5000
DVA-120	10	4000	N/A	5000

Take Apart Construction (TAC)	Tonnage	Standard Airflow CFM	Optional Airflows, CFM	
			High	Ultra
DVD-120	10	4000	6000, 6400, 7200, 8000 ¹	10,000
DVD-144	12	4800	6000, 6400, 7200, 8000 ¹	10,000
DVD-196	16	6400	7200, 8000 ¹	10,000
DVD-216	18	7200	8000 ¹	10,000
DVD-240	20	8000	N/A	10,000

N/A = Not Available

¹ Units can be factory ordered at any of these settings or can be adjusted in the field.

Additional models available. Contact DXair Sales for availability of models not listed.



MODEL CONFIGURATION

DXair

Model Configurator

D	V	A	-	0	4	1	-	1	-	R	S	N	-	L	-	X	X	-	X	X
1	2	3		4	5	6		7		8	9	10		11		12	13		14	15
Model Number Digits																				

DVA-041-1-RSN-L-XX-XX

Brand (1) DXair=D	Reserved (14,15) XX=Reserved
Unit Style (2) Vertical=V Hydronic=W	Miscellaneous Kits (12,13) *Any combination of two H=Heat Mode Kit T=Take Apart Construction X=None
CompressorType (3) Single Stage=A Dual Compressor=D	Return Airflow Configuration (11) L=Left Return (Standard) R=Right Return X=N/A
Nominal BTU (4,5,6) BTUh x 1000	Pool Heater (10) N=Cupronickel X=None
Voltage (7) 208 / 230 V, 1ph=1 208 / 230 V, 3ph=2 460 / 480 V, 3ph=3	CFM (9) A=Standard, Horizontal Supply B=Ultra CFM, Horizontal Supply C=Ultra CFM, Vertical Supply H=High CFM, Horizontal Supply S=Standard, Vertical Supply V=High CFM, Vertical Supply X=N/A
Heat Exchanger (8) Fluid Cooler, Copper Coax=C Fluid Cooler, Cupronickel Coax=N Remote Condenser (supplied by others)=R Titanium (Load) & Copper (Source) Coax=T	



STANDARD UNITS

STANDARD UNITS (2-10 TONS)



STANDARD UNITS

PERFORMANCE DATA – STANDARD UNITS (2-10 TONS)

Cooling Performance - Fluid Cooler¹

Model			Entering Water Temperature					
	Fluid Flow GPM	Airflow CFM	59°F		77°F		86°F	
			Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER
DVA-024	6	800	29,300	24.2	26,100	16.7	24,400	14.3
DVA-041	9	1200	41,500	24.6	38,000	17.3	35,800	15.1
DVA-053	12	1600	51,300	23.8	46,200	17.3	39,600	13.7
DVA-061	15	2000	74,900	24.6	67,500	17.5	63,500	15.4
DVA-073	18	2400	82,900	23.1	74,500	17.9	70,200	15.8
DVA-097	20	3200	103,400	21.6	92,900	16.6	87,100	14.7
DVA-110	24	3600	116,300	20.9	105,600	16.3	99,800	14.7
DVA-120 ²	28	4000	133,600	22.8	116,800	17.0	109,600	15.0

¹Performance data was taken at noted water temperatures and return air conditions of 80.6°F Dry Bulb and 66.2°F Wet Bulb

²3 Phase only

Cooling Performance - Remote Condenser¹

Model		Entering Air Temperature									
		80°F		85°F		90°F		95°F		100°F	
	Airflow CFM	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER
DVA-024	800	25,900	17.2	24,700	15.5	23,450	13.8	22,650	12.5	21,650	11.0
DVA-041	1200	37,250	17.7	35,500	15.9	33,700	14.1	32,550	12.8	31,150	11.2
DVA-053	1600	45,600	17.6	43,450	15.8	41,200	14.1	39,850	12.7	38,100	11.2
DVA-061	2000	66,700	17.9	63,500	16.1	60,300	14.3	58,250	12.9	55,700	11.4
DVA-073	2400	73,700	17.9	70,200	16.1	66,600	14.3	64,400	12.9	61,550	11.4
DVA-097	3200	91,850	16.6	87,500	14.9	83,050	13.3	80,250	12.0	76,750	10.6
DVA-110	3600	103,850	16.1	98,950	14.5	93,900	12.9	90,750	11.7	86,800	10.3
DVA-120 ²	4000	117,150	17.3	111,600	15.6	105,900	13.8	102,350	12.5	97,900	11.0

¹Performance data was taken at noted outside air temperatures and entering air conditions of 82°F Dry Bulb and 69°F Wet Bulb

Dehumidification Performance

Model	Moisture Removal @ Relative Humidity		
	Return Air Temp F		
		50% RH lbs/h	60% RH lbs/h
DVA-024	82	8.9	11.8
DVA-041	82	11.8	15.4
DVA-053	82	16.3	21.2
DVA-061	82	18.9	24.7
DVA-073	82	23.5	31.5
DVA-097	82	32.8	41.6
DVA-110	82	37.7	47.1
DVA-120	82	41.5	52.3



STANDARD UNITS

ELECTRICAL DATA – STANDARD UNITS (2-10 TONS)

Model	Voltage	Voltage	Phase	Hz	Compressor		Blower	Total	Min	Max Fuse
	Code				RLA	LRA	FLA	FLA	Ampac.	HACR
DVA-024	1	208/230	1	60	13.5	58	1.9	15.4	18.8	25
	2	208/230	3	60	7.1	55	1.9	9.0	10.8	15
	3	460/480	3	60	3.5	28	2.2	5.7	6.6	10
DVA-041	1	208/230	1	60	14.1	77	2.9	17.0	20.5	30
	2	208/230	3	60	9.0	71	2.9	11.9	14.2	20
	3	460/480	3	60	5.6	38	3.4	9.0	10.4	15
DVA-053	1	208/230	1	60	17.9	112	2.9	20.8	25.3	35
	2	208/230	3	60	13.5	88	2.9	16.4	19.8	30
	3	460/480	3	60	6.6	44	3.4	10.0	11.7	15
DVA-061	1	208/230	1	60	26.4	134	5.6	32.0	38.6	55
	2	208/230	3	60	16.0	110	5.6	21.6	25.6	35
	3	460/480	3	60	7.8	52	3.3	11.1	13.1	20
DVA-073	1	208/230	1	60	28.3	178	5.6	33.9	41.0	60
	2	208/230	3	60	20.5	155	5.6	26.1	31.2	45
	3	460/480	3	60	8.7	66	3.3	12.0	14.2	20
DVA-097	1	208/230	1	60	36.9	185	11.2	48.1	57.3	80
	2	208/230	3	60	23.2	164	5.0	28.2	34.0	50
	3	460/480	3	60	11.2	75	2.5	13.7	16.5	25
DVA-110	1	208/230	1	60	32.1	185	11.2	43.3	51.3	80
	2	208/230	3	60	25.0	164	5.0	30.0	36.3	55
	3	460/480	3	60	12.2	100	2.5	14.7	17.8	25
DVA-120	2	208/230	3	60	27.6	191	5.0	32.6	39.5	60
	3	460/480	3	60	12.8	100	2.5	15.3	18.5	25

STANDARD UNITS

PHYSICAL DATA – STANDARD UNITS (2-10 TONS)

Model	SS DVA-024	SS DVA-041	SS DVA-053	SS DVA-061	SS DVA-073	SS DVA-097	SS DVA-110	SS DVA-120
Compressor								
Nominal Tonnage	2	3	4	5	6	8	9	10
Compressor Qty	1	1	1	1	1	1	1	1
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Max design pressure (psig)	450	450	450	450	450	450	450	450
Blower and Motor								
Nominal CFM	800	1200	1600	2000	2400	3200	3600	4000
Nominal External Static Pressure (in H ₂ O)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Blower wheel size (dia x w)	9 x 9	9 x 9	9 x 9	10 x 10	10 x 10	15 x 11	15 x 11	15 x 11
Motor Type	PSC	PSC	PSC	PSC	PSC	CAP START	CAP START	CAP START
Motor HP	1/3	1/2	1/2	1	1	1 1/2	1 1/2	1 1/2
Motor Speeds	3	3	3	3	3	1	1	1
Drive Type	Direct	Direct	Direct	Direct	Direct	Belt	Belt	Belt
Air Coils								
Coil Type	Tube and Fin	Tube and Fin	Tube and Fin	Tube and Fin	Tube and Fin	Tube and Fin	Tube and Fin	Tube and Fin
Fin Spacing (fins/in)	14	14	14	14	14	14	14	14
Coil Coating	ElectroFin	ElectroFin	ElectroFin	ElectroFin	ElectroFin	ElectroFin	ElectroFin	ElectroFin
Evap Coil Dimensions (H" x W")	27 x 25	27 x 25	27 x 25	36 x 25	36 x 25	36 x 25	36 x 25	36 x 25
Reheat Coil Dimensions (H" x W")	27 x 25	27 x 25	27 x 25	36 x 25	36 x 25	36 x 25	36 x 25	36 x 25
Air Filter size (H" x W" x D")	29 x 28 x 1	29 x 28 x 1	29 x 28 x 1	38 x 28 x 1	38 x 28 x 1	38 x 28 x 1	38 x 28 x 1	38 x 28 x 1
Refrigerant Charge								
R410A (lbs/oz) - FC [DX]	4/8 [8/0]	4/8 [8/0]	4/8 [8/0]	6/4 [10/0]	6/4 [10/0]	6/4 [10/0]	7/0 [10/10]	7/0 [10/10]
FC, Fluid Cooler Option								
Hx Type	Coaxial Tube in Tube	Coaxial Tube in Tube	Coaxial Tube in Tube	Coaxial Tube in Tube	Coaxial Tube in Tube	Coaxial Tube in Tube	Coaxial Tube in Tube	Coaxial Tube in Tube
Hx & Piping Liquid Volume (gal)	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
Min Flow (gpm)	6	9	12	15	18	20	24	28
DX, Remote Condenser Heat Exchanger								
Hot Gas connection size (in)	7/8 OD	7/8 OD	7/8 OD	7/8 OD	7/8 OD	7/8 OD	7/8 OD	7/8 OD
Liquid connection size (in)	1/2 OD	1/2 OD	1/2 OD	1/2 OD	1/2 OD	1/2 OD	1/2 OD	1/2 OD
Hot Gas line size @ 50ft max (in)	1/2 OD	1/2 OD	1/2 OD	5/8 OD	3/4 OD	3/4 OD	7/8 OD	7/8 OD
Liquid line size @ 50ft max (in)	3/8 OD	3/8 OD	3/8 OD	3/8 OD	3/8 OD	3/8 OD	1/2 OD	5/8 OD
Liquid connections, FNPT								
Source Loop Hx	1	1	1	1	1	1	1	1
Condensate Drain	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Pool Heater ¹	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Weight – Shipping (lbs)	440	445	450	480	485	540	545	550

Specifications subject to change.

Shipping weights include the pallet and the box. Subtract 17 lbs for actual operating weight.

When choosing the Remote Condenser option rather than the Fluid Cooler option, subtract 65 lbs. from shipping weight for actual operating weight.

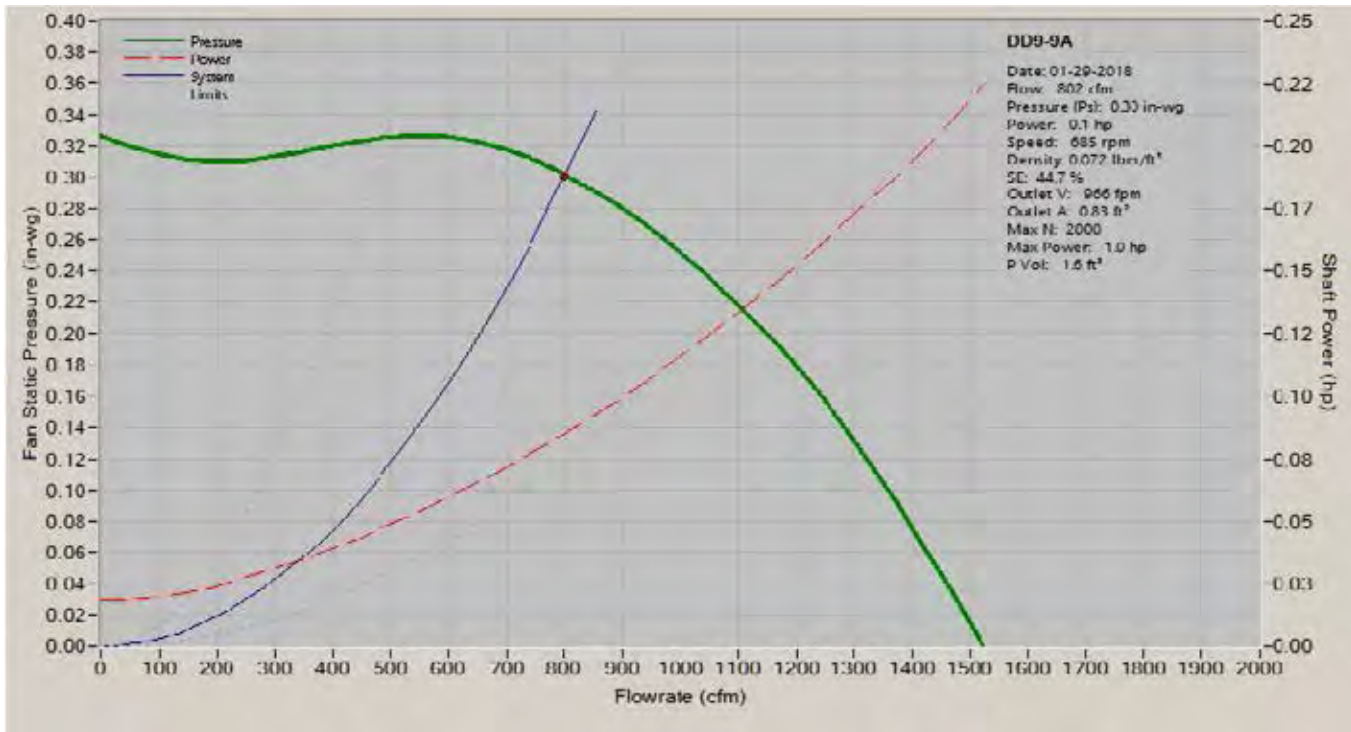
Note: Options will determine final operating weight. Line sets/sizing is based on 25-50 ft. on same level as DXair unit (straight to unit). Contact DXair engineering for all other installations.

¹ **This is NOT 100% Pool Water Heating.** This is Heat Recovery/Reclaim Heating only. A standard pool heater is required for all systems as your primary source of pool heat.

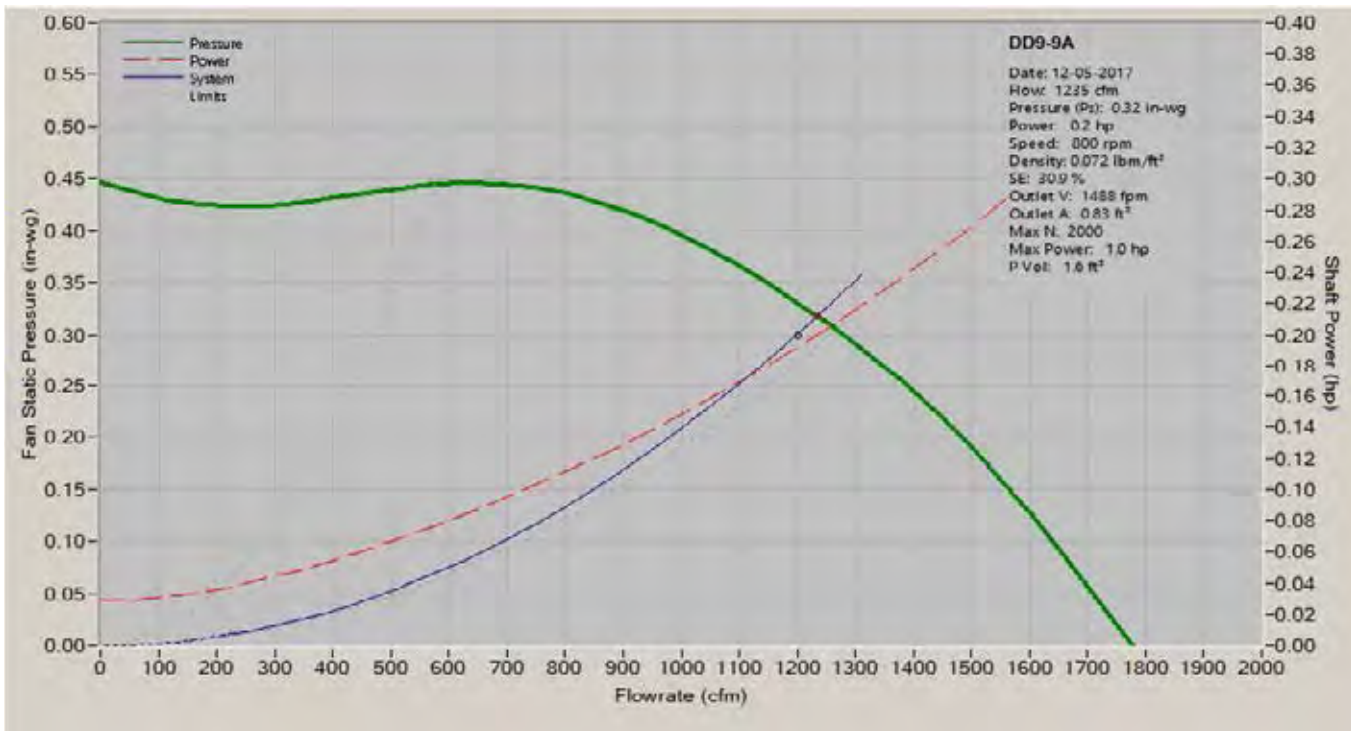
STANDARD UNITS

BLOWER CURVES

DVA-024, 800CFM



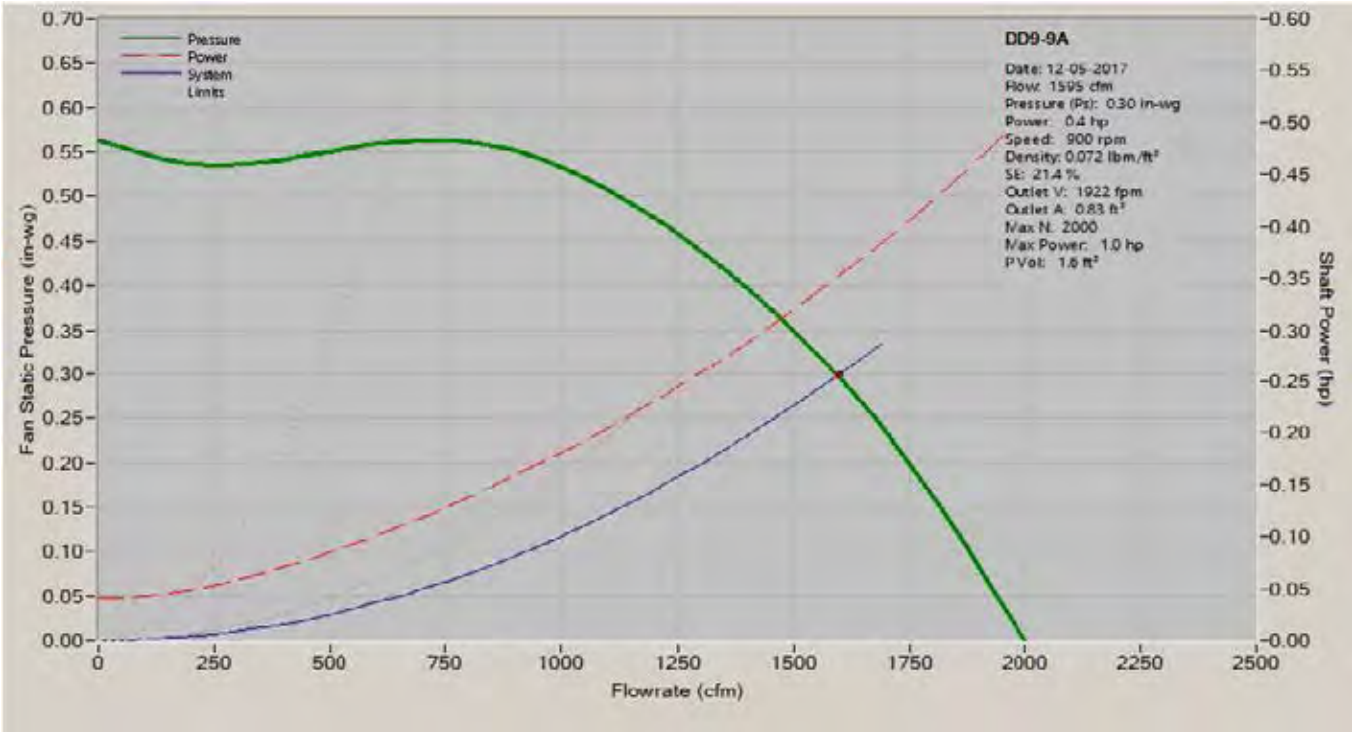
DVA-041, 1200 CFM



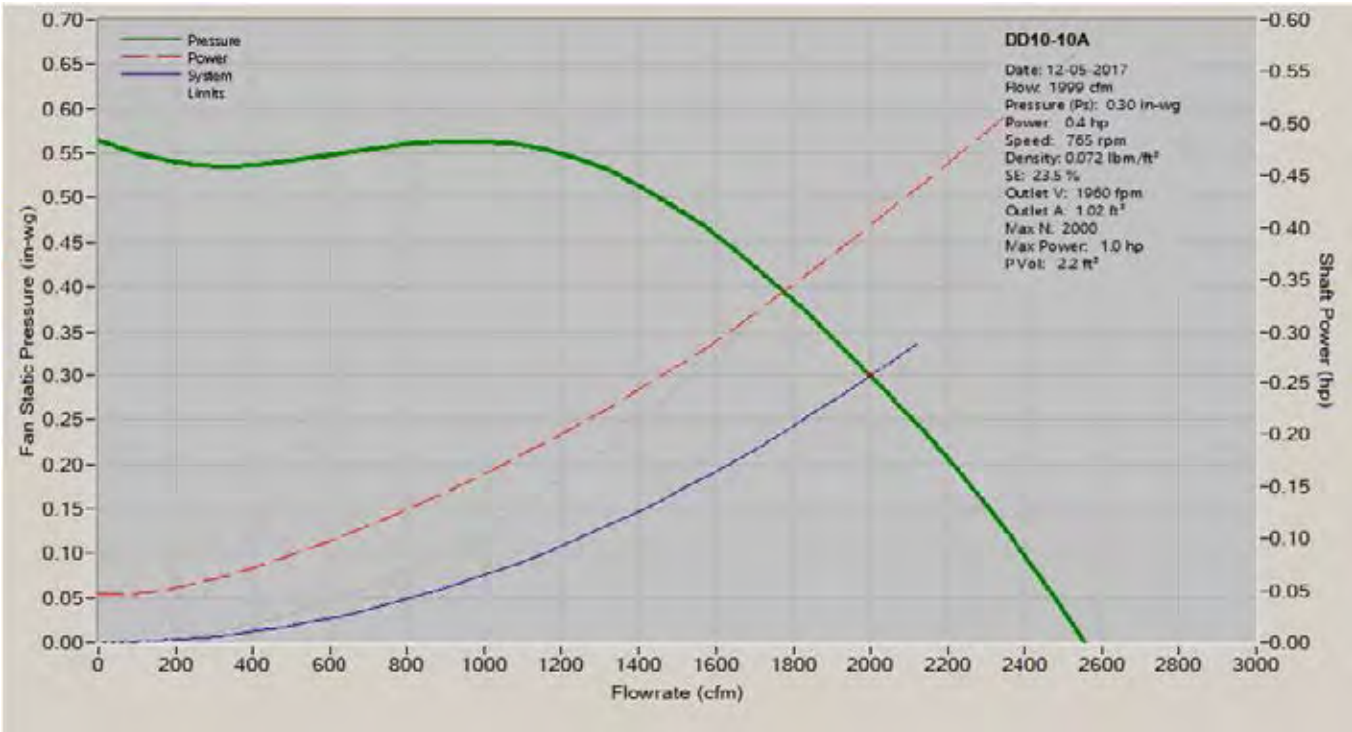
STANDARD UNITS

BLOWER CURVES

DVA-053, 1600 CFM



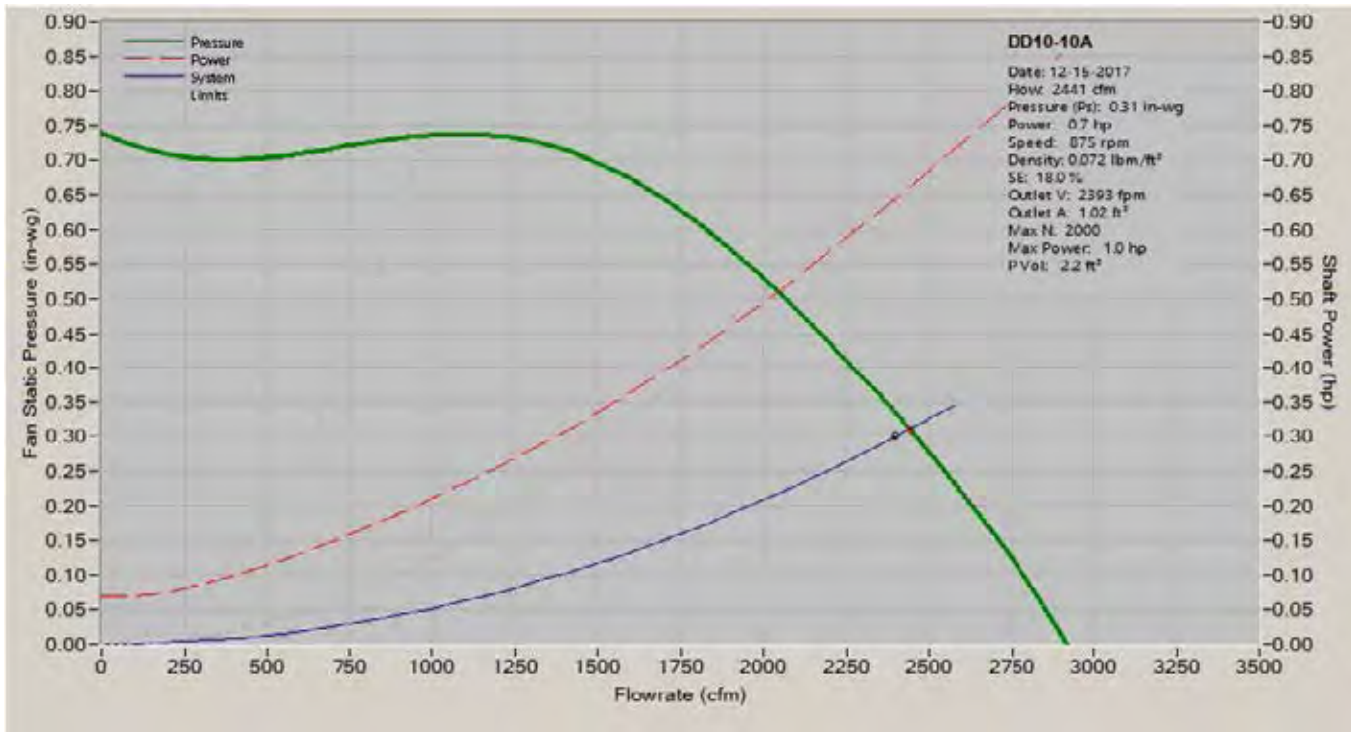
DVA-061, 2000 CFM



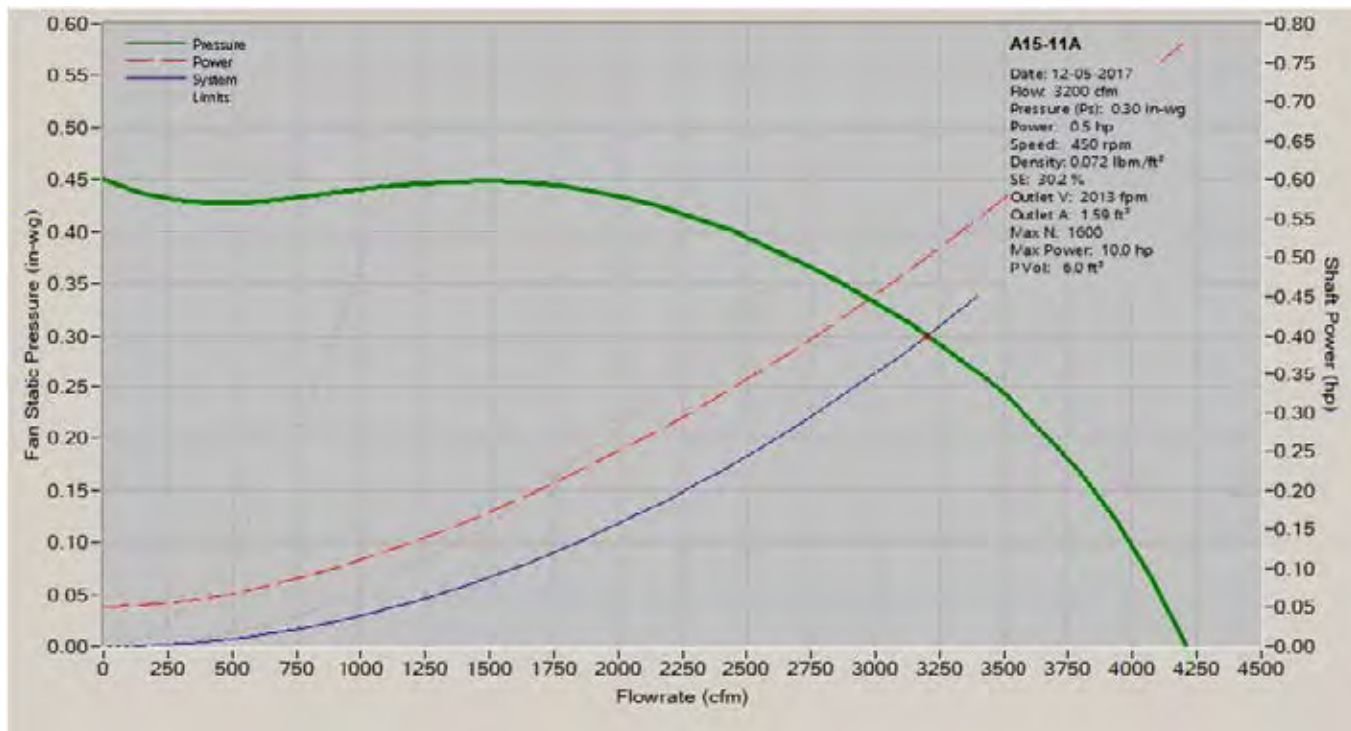
STANDARD UNITS

BLOWER CURVES

DVA-073, 2400 CFM



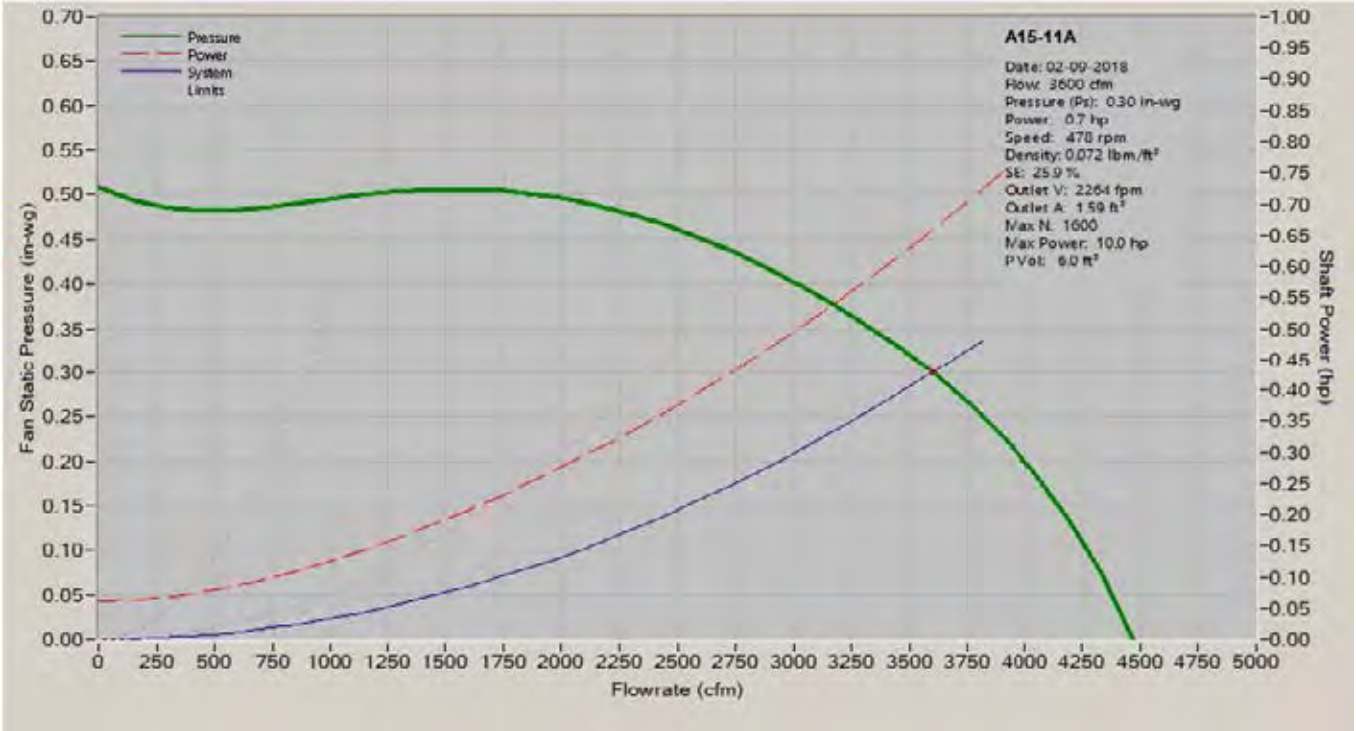
DVA-097, 3200 CFM



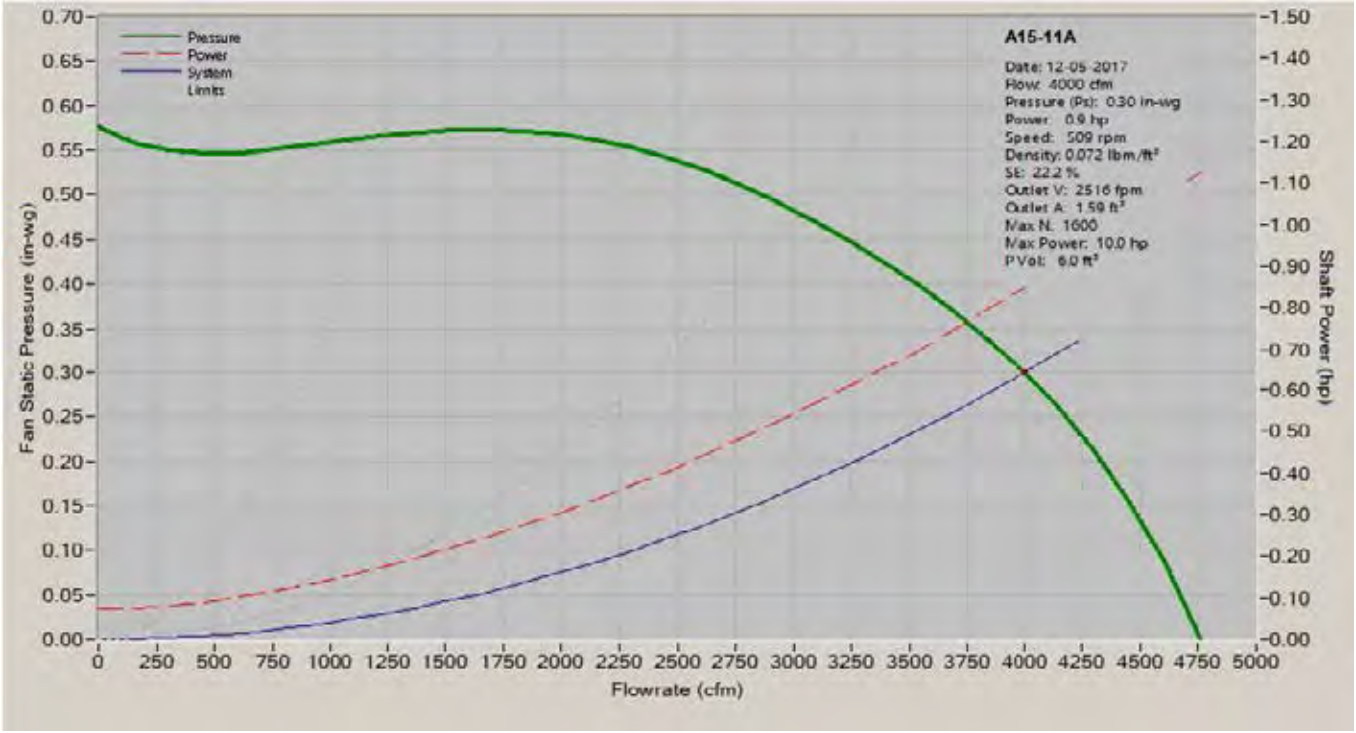
STANDARD UNITS

BLOWER CURVES

DVA-110, 3600 CFM

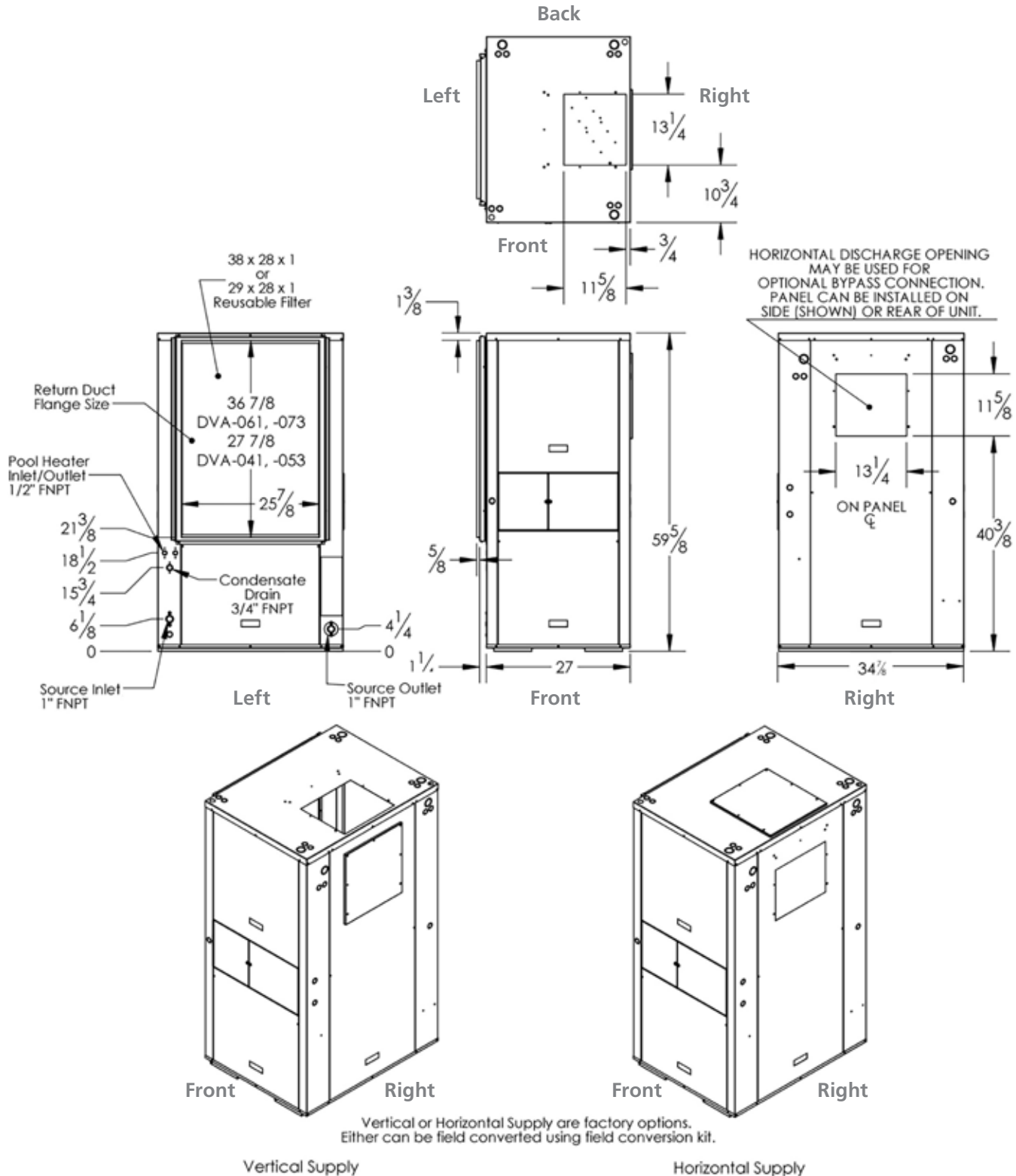


DVA-120, 4000 CFM



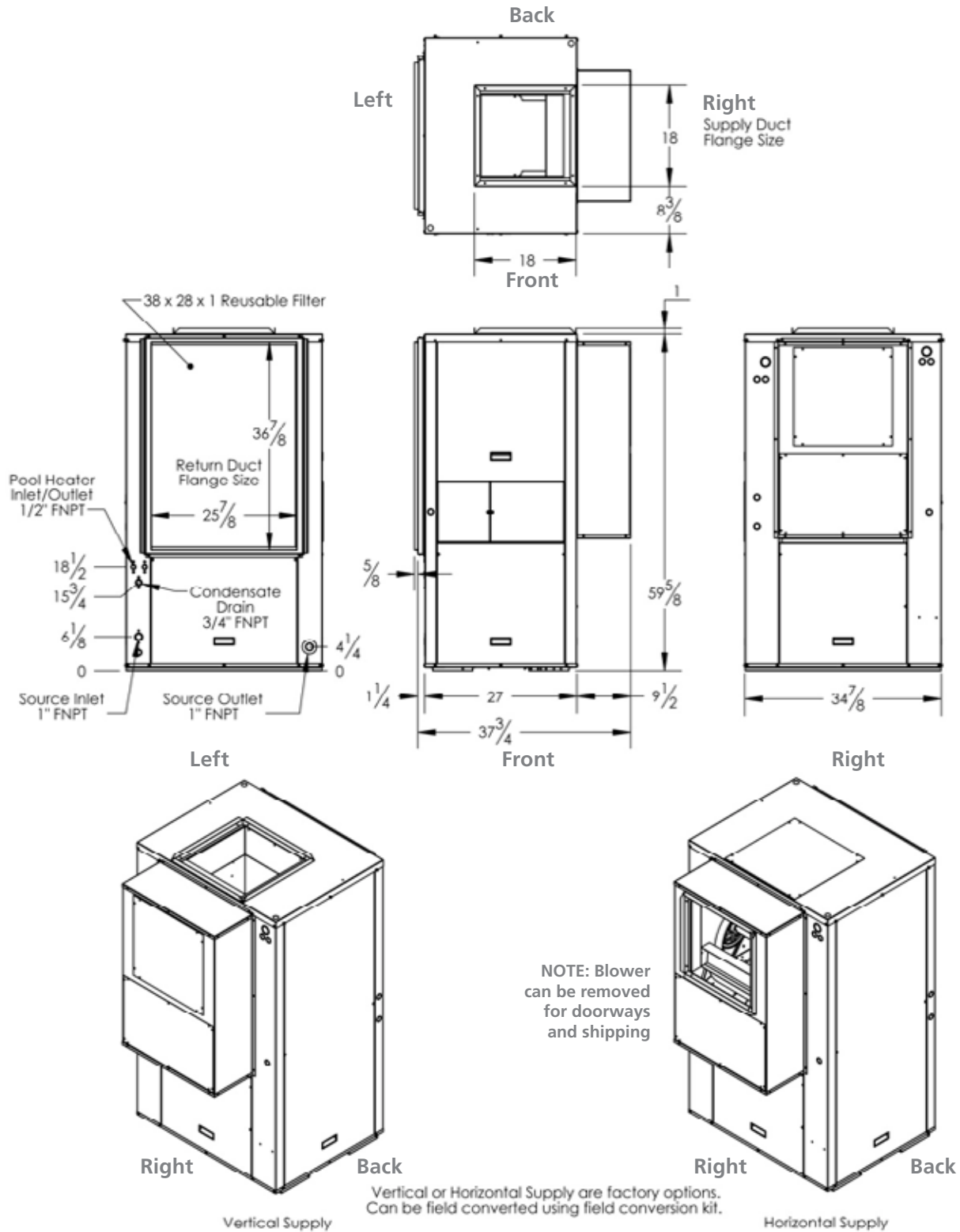
STANDARD UNITS

DXAIR SS SERIES DVA-024 TO 073 – STANDARD CFM UNITS (2-6 TONS) Installed Dimensions



STANDARD UNITS

DXAIR SS SERIES DVA-097 TO DVA-120 – STANDARD CFM UNITS (8-10 TONS)



HIGH & ULTRA CFM UNITS

HIGH & ULTRA CFM UNITS (3-20 TONS)



HIGH & ULTRA CFM UNITS**OVERVIEW**

High CFM and Ultra CFM Models offer the same capacity as Standard models but with the added benefit of higher air flows and the ability to operate at higher static pressures. This allows for greater air exchanges per hour. In conjunction with these higher CFM models, the Max Evap Option will bypass the additional airflow in order to maintain the coldest possible evaporator coil and remove the highest amount of moisture. High and Ultra CFM options are offered on the following models:

Standard CFM - Option A or S	Total Airflow, CFM	External Static Pressure (ESP), in WC
DVA-024	800	0.3
DVA-041	1200	0.3
DVA-053	1600	0.3
DVA-061	2000	0.3
DVA-073	2400	0.3
DVA-097	3200	0.3
DVA-110	3600	0.3
DVA-120	4000	0.3
DVD-120	4000	0.3
DVD-144	4800	0.3
DVD-196	6400	0.3
DVD-216	7200	0.3
DVD-240	8000	0.3
High CFM - Option H or V		
DVA-041	1400	1.00
DVA-053	2000	1.00
DVA-061	3000, 3200, 3600, 4000 ¹	1.00
DVA-073	3000, 3200, 3600, 4000 ¹	1.00
DVA-097	3600, 4000 ¹	1.00
DVA-110	4000	1.00
DVD-120	6000, 6400, 7200, 8000 ¹	1.00
DVD-144	6000, 6400, 7200, 8000 ¹	1.00
DVD-196	7200, 8000 ¹	1.00
DVD-216	8000 ¹	1.00
Ultra CFM - Option B or C		
DVA-061	5000	1.30
DVA-073	5000	1.30
DVA-097	5000	1.30
DVA-120	5000	1.30
DVD-120	10,000	1.30
DVD-144	10,000	1.30
DVD-196	10,000	1.30
DVD-216	10,000	1.30
DVD-240	10,000	1.30

¹ Units can be factory ordered at any of these settings or can be adjusted in the field.

HIGH & ULTRA CFM UNITS

PERFORMANCE DATA – HIGH & ULTRA CFM UNITS (3-10 TONS)

Cooling Performance - Fluid Cooler ¹								
Model	Entering Water Temperature							
	Fluid Flow GPM	Airflow CFM	59°F		77°F		86°F	
			Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER
DVA-041	9	1400	41,500	24.6	38,000	17.3	35,800	15.1
DVA-053	12	2000	51,300	23.8	46,200	17.3	39,600	13.7
DVA-061	15	3000, 3200, 3600, 4000, 5000	74,900	24.6	67,500	17.5	63,500	15.4
DVA-073	18	3000, 3200, 3600, 4000, 5000	82,900	23.1	74,500	17.9	70,200	15.8
DVA-097	20	3600, 4000, 5000	103,400	21.6	92,900	16.6	87,100	14.7
DVA-110	24	4000, 5000	116,300	20.9	105,600	16.3	99,800	14.7
DVA-120 ²	28	5000	133,600	22.8	116,800	17.0	109,600	15.0

¹Performance data was taken at noted water temperatures and return air conditions of 80.6°F Dry Bulb and 66.2°F Wet Bulb.

²3 Phase only

Cooling Performance - Remote Condenser ¹											
Model	Airflow CFM	Entering Air Temperature									
		80°F		85°F		90°F		95°F		100°F	
		Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER
DVA-041	1400	25,900	17.2	24,700	15.5	23,450	13.8	22,650	12.5	21,650	11.0
DVA-053	2000	37,250	17.7	35,500	15.9	33,700	14.1	32,550	12.8	31,150	11.2
DVA-061	3000, 3200, 3600, 4000, 5000	45,600	17.6	43,450	15.8	41,200	14.1	39,850	12.7	38,100	11.2
DVA-073	3000, 3200, 3600, 4000, 5000	66,700	17.9	63,500	16.1	60,300	14.3	58,250	12.9	55,700	11.4
DVA-097	3600, 4000, 5000	73,700	17.9	70,200	16.1	66,600	14.3	64,400	12.9	61,550	11.4
DVA-110	4000, 5000	91,850	16.6	87,500	14.9	83,050	13.3	80,250	12.0	76,750	10.6
DVA-120 ²	5000	103,850	16.1	98,950	14.5	93,900	12.9	90,750	11.7	86,800	10.3
DVA-120 ²	4000	117,150	17.3	111,600	15.6	105,900	13.8	102,350	12.5	97,900	11.0

¹Performance data was taken at noted outside air temperatures and entering air conditions of 82°F Dry Bulb and 69°F Wet Bulb

Dehumidification Performance			
Model	Return Air Temp F	Moisture Removal @ Relative Humidity	
		50% RH lbs/h	60% RH lbs/h
DVA-041	82	11.8	15.4
DVA-053	82	16.3	21.2
DVA-061	82	18.9	24.7
DVA-073	82	23.5	31.5
DVA-097	82	32.8	41.6
DVA-110	82	37.7	47.1
DVA-120	82	41.5	52.3



HIGH & ULTRA CFM UNITS

HIGH & ULTRA CFM UNITS PERFORMANCE DATA (10-20 TONS)

Cooling Performance - Fluid Cooler¹

			Fluid Cooler Entering Water Temperature					
			59°F		77°F		86°F	
Model	Fluid Flow GPM	Airflow CFM	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER
DVD-120	30	6000, 6400, 7200, 8000, 10,000	149,800	23.6	135,000	17.5	127,000	15.4
DVD-144	36	6000, 6400, 7200, 8000, 10,000	165,800	22.3	149,000	17.9	140,400	15.8
DVD-196	40	7200, 8000, 10,000	206,800	20.8	185,800	16.6	174,200	14.7
DVD-216	48	8000, 10,000	232,600	20.1	211,200	16.3	199,600	14.7
DVD-240 ²	56	10,000	267,200	21.9	233,600	17.0	219,200	15.0

¹Performance data was taken at noted water temperatures and return air conditions of 80.6°F Dry Bulb and 66.2°F Wet Bulb

²3 Phase only

Cooling Performance - Remote Condenser¹

		Remote Condenser Entering Air Temperature									
		80°F		85°F		90°F		95°F		100°F	
Model	Airflow CFM	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER
DVD-120	6000, 6400, 7200, 8000, 10,000	133,400	17.9	127,000	16.1	120,600	14.3	116,500	12.9	111,400	11.4
DVD-144	6000, 6400, 7200, 8000, 10,000	147,400	17.9	140,400	16.1	133,200	14.3	128,800	12.9	123,100	11.4
DVD-196	7200, 8000, 10,000	183,700	16.6	175,000	14.9	166,100	13.3	160,500	12.0	153,500	10.6
DVD-216	8000, 10,000	207,700	16.1	197,900	14.5	187,800	12.9	181,500	11.7	173,600	10.3
DVD-240 ²	10,000	234,300	17.3	223,200	15.6	211,800	13.8	204,700	12.5	195,800	11.0

¹Performance data was taken at noted outside air temperatures and return air conditions of 80.6°F Dry Bulb and 66.2°F Wet Bulb

²3 Phase only

Dehumidification Performance

		Moisture Removal @ Relative Humidity	
		50% RH lbs/h	60% RH lbs/h
Model	Return Air Temp F		
DVD-120	82	37.8	49.4
DVD-144	82	47.0	63.0
DVD-196	82	65.6	83.2
DVD-216	82	75.4	94.2
DVD-240	82	83.0	104.6



HIGH & ULTRA CFM UNITS

PHYSICAL DATA - HIGH AND ULTRA CFM MODELS (3-20 TONS)

High and Ultra CFM models utilize the same compressor, air coils, water connections, remote condenser connections, and other components as the Standard cfm models. Information regarding these components can be found in the Physical Data - Standard CFM Units section. Information on components that differ from Standard models is presented here.

HIGH CFM OPTION										
Model	DVA-041	DVA-053	DVA-061	DVA-073	DVA-097	DVA-110	DVD-120	DVD-144	DVD-196	DVD-216
CFM Option Code	V	V	H or V	H or V	H or V	H or V	H or V	H or V	H or V	H or V
Nominal tonnage	3	4	5	6	8	9	10	12	16	18
Blower and Motor										
CFM (factory or field adj)	1400	2000	3000, 3200, 4000	3000, 3200, 3600, 4000	3600, 4000	4000	6000, 6400, 7200, 8000	6000, 6400, 7200, 8000	7200, 8000	7200, 8000
Blower wheel size (dia x w)	10 x 10	10 x 10	15 x 11	15 x 11	15 x 11	15 x 11	15 x 11 (2x)	15 x 11 (2x)	15 x 11 (2x)	15 x 11 (2x)
Motor Type	PSC	PSC	Cap Start	Cap Start	Cap Start	Cap Start	Cap Start	Cap Start	Cap Start	Cap start
Motor HP	1 (2x)	1 (2x)	1 1/2 (2x)	1 1/2 (2x)	1 1/2 (2x)	1 1/2 (2x)	1 1/2 (2x)	1 1/2 (2x)	1 1/2 (2x)	1 1/2 (2x)
Motor Speeds	3	3	1	1	1	1	1	1	1	1
Drive Type	Direct	Direct	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt
Weight- Shipping (lbs)	450	455	530	535	540	545	1060	1070	1080	1090

ULTRA CFM OPTION										
Model	DVA-061	DVA-073	DVA-097	DVA-110	DVA-120	DVD-120	DVD-144	DVD-196	DVD-216	DVD-240
CFM Option Code	B or C	B or C	B or C	B or C	B or C	B or C	B or C	B or C	B or C	B or C
Nominal tonnage	5	6	8	9	10	10	12	16	18	20
Blower and Motor										
CFM	5000	5000	5000	5000	5000	10,000	10,000	10,000	10,000	10,000
Blower wheel size (dia x w)	15 x 11	15 x 11	15 x 11	15 x 11	15 x 11	15 x 11 (2x)	15 x 11 (2x)	15 x 11 (2x)	15 x 11 (2x)	15 x 11 (2x)
Motor Type	3 ph	3 ph	3 ph	3 ph	3 ph	3 ph	3 ph	3 ph	3 ph	3 ph
Motor HP	3 (2x)	3 (2x)	3 (2x)	3 (2x)	3 (2x)	3 (2x)	3 (2x)	3 (2x)	3 (2x)	3 (2x)
Motor Speeds	1	1	1	1	1	1	1	1	1	1
Drive Type	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt
Weight- Shipping (lbs)	548	553	558	563	568	1096	1106	1116	1126	1136

HIGH & ULTRA CFM UNITS

HIGH CFM ELECTRICAL DATA (3-18 TONS)

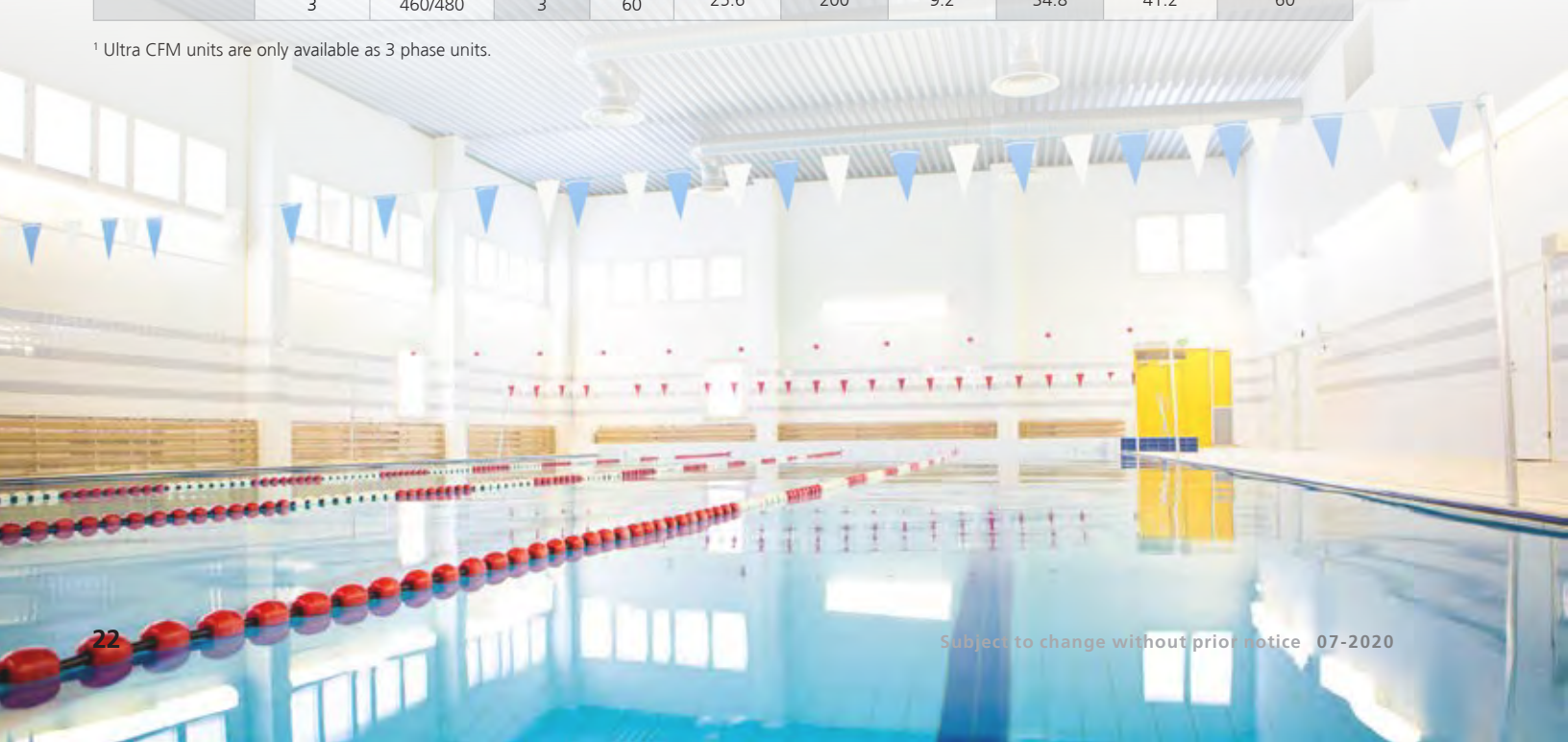
Model	Voltage	Voltage	Phase	Hz	Compressor		Blower	Total	Min.	Max Fuse
	Code				RLA	LRA	FLA	FLA	Ampac.	HACR
High CFM										
DVA-041	1	208/230	1	60	14.1	77	5.6	19.7	23.2	35
	2	208/230	3	60	9.0	71	5.6	14.6	16.9	25
	3	460/480	3	60	5.6	38	3.3	8.9	10.3	15
DVA-053	1	208/230	1	60	17.9	112	5.6	23.5	28.0	40
	2	208/230	3	60	13.5	88	5.6	19.1	22.5	35
	3	460/480	3	60	6.6	44	3.3	9.9	11.6	15
DVA-061	1	208/230	1	60	26.4	134	11.2	37.6	44.2	65
	2	208/230	3	60	16.0	110	5.0	21.0	25.0	35
	3	460/480	3	60	7.8	52	2.5	10.3	12.3	15
DVA-073	1	208/230	1	60	28.3	178	11.2	39.5	46.6	70
	2	208/230	3	60	20.5	155	5.0	25.5	30.6	45
	3	460/480	3	60	8.7	66	2.5	11.2	13.4	20
DVA-097	1	208/230	1	60	36.9	185	11.2	48.1	57.3	80
	2	208/230	3	60	23.2	164	5.0	28.2	34.0	50
	3	460/480	3	60	11.2	75	2.5	13.7	16.5	25
DVA-110	1	208/230	1	60	32.1	185	11.2	43.3	51.3	80
	2	208/230	3	60	25.0	164	5.0	30.0	36.3	55
	3	460/480	3	60	12.2	100	2.5	14.7	17.8	25
DVD-120	1	208/230	1	60	52.8	268	22.4	75.2	88.4	135
	2	208/230	3	60	32.0	220	10.0	42.0	50.0	75
	3	460/480	3	60	15.4	104	5.0	20.4	24.3	35
DVD-144	1	208/230	1	60	56.6	356	22.4	79.0	93.2	140
	2	208/230	3	60	41.0	310	10.0	51.0	61.3	90
	3	460/480	3	60	17.4	132	5.0	22.4	26.8	40
DVD-196	1	208/230	1	60	73.8	370	22.4	96.2	114.7	175
	2	208/230	3	60	46.4	328	10.0	56.4	68.0	100
	3	460/480	3	60	22.4	150	5.0	27.4	33.0	50
DVD-216	1	208/230	1	60	64.2	370	22.4	86.6	102.6	155
	2	208/230	3	60	50.0	328	10.0	60.0	72.6	110
	3	460/480	3	60	24.4	200	5.0	29.4	35.6	55

HIGH & ULTRA CFM UNITS

ULTRA CFM ELECTRICAL DATA (5-20 TONS)¹

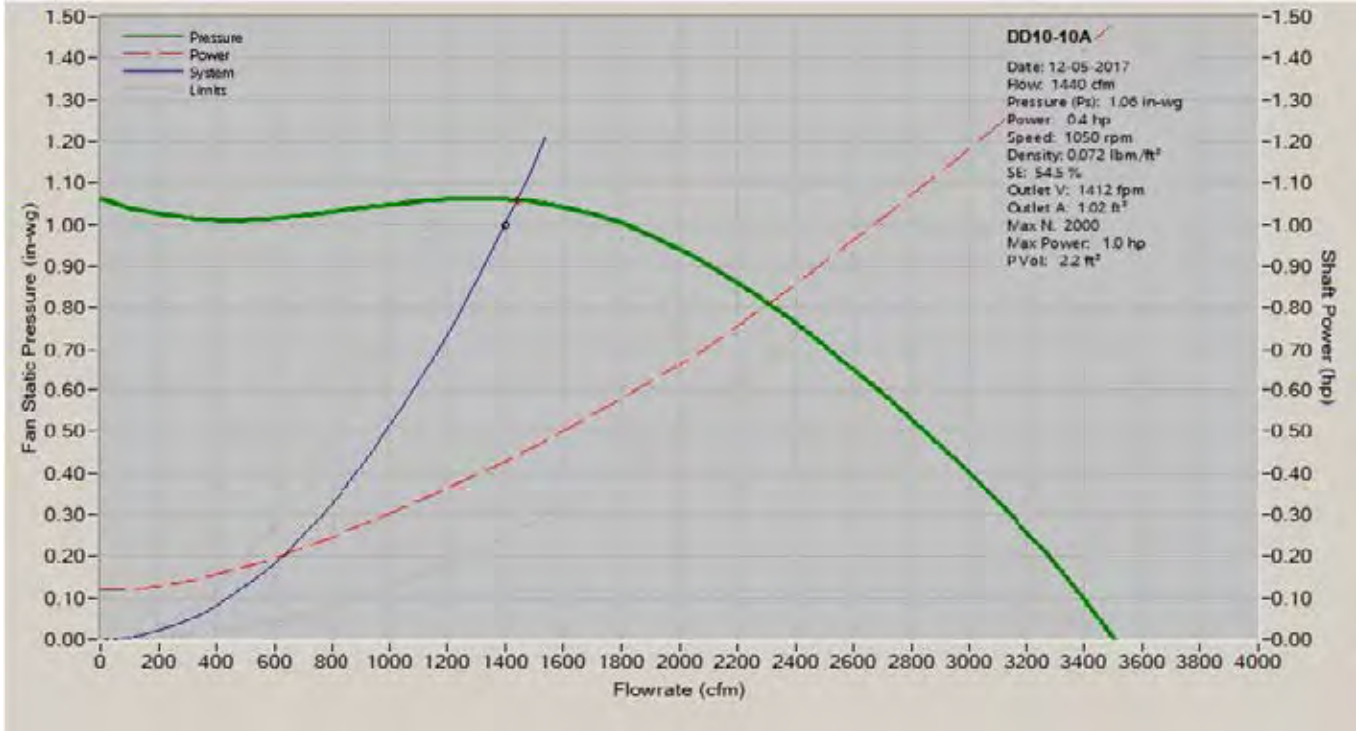
Model	Voltage	Voltage	Phase	Hz	Compressor		Blower	Total	Min.	Max Fuse
	Code				RLA	LRA	FLA	FLA	Ampac.	HACR
Ultra CFM ¹										
DVA-061	2	208/230	3	60	16.0	110	9.2	25.2	29.2	45
	3	460/480	3	60	7.8	52	4.6	12.4	14.4	20
DVA-073	2	208/230	3	60	20.5	155	9.2	29.7	34.8	50
	3	460/480	3	60	8.7	66	4.6	13.3	15.5	20
DVA-097	2	208/230	3	60	23.2	164	9.2	32.4	38.2	55
	3	460/480	3	60	11.2	75	4.6	15.8	18.6	25
DVA-110	2	208/230	3	60	25.0	164	9.2	34.2	40.5	60
	3	460/480	3	60	12.2	100	4.6	16.8	19.9	30
DVA-120	2	208/230	3	60	27.6	191	9.2	36.8	43.7	65
	3	460/480	3	60	12.8	100	4.6	17.4	20.6	30
DVD-120	2	208/230	3	60	27.6	191	9.2	36.8	43.7	65
	3	460/480	3	60	12.8	100	4.6	17.4	20.6	30
DVD-144	2	208/230	3	60	41.0	310	18.4	59.4	69.7	100
	3	460/480	3	60	17.4	132	9.2	26.6	31.0	45
DVD-196	2	208/230	3	60	46.4	328	18.4	64.8	76.4	110
	3	460/480	3	60	22.4	150	9.2	31.6	37.2	55
DVD-216	2	208/230	3	60	50.0	328	18.4	68.4	81.0	120
	3	460/480	3	60	24.4	200	9.2	33.6	39.8	60
DVD-240	2	208/230	3	60	55.2	382	18.4	73.6	87.4	130
	3	460/480	3	60	25.6	200	9.2	34.8	41.2	60

¹ Ultra CFM units are only available as 3 phase units.

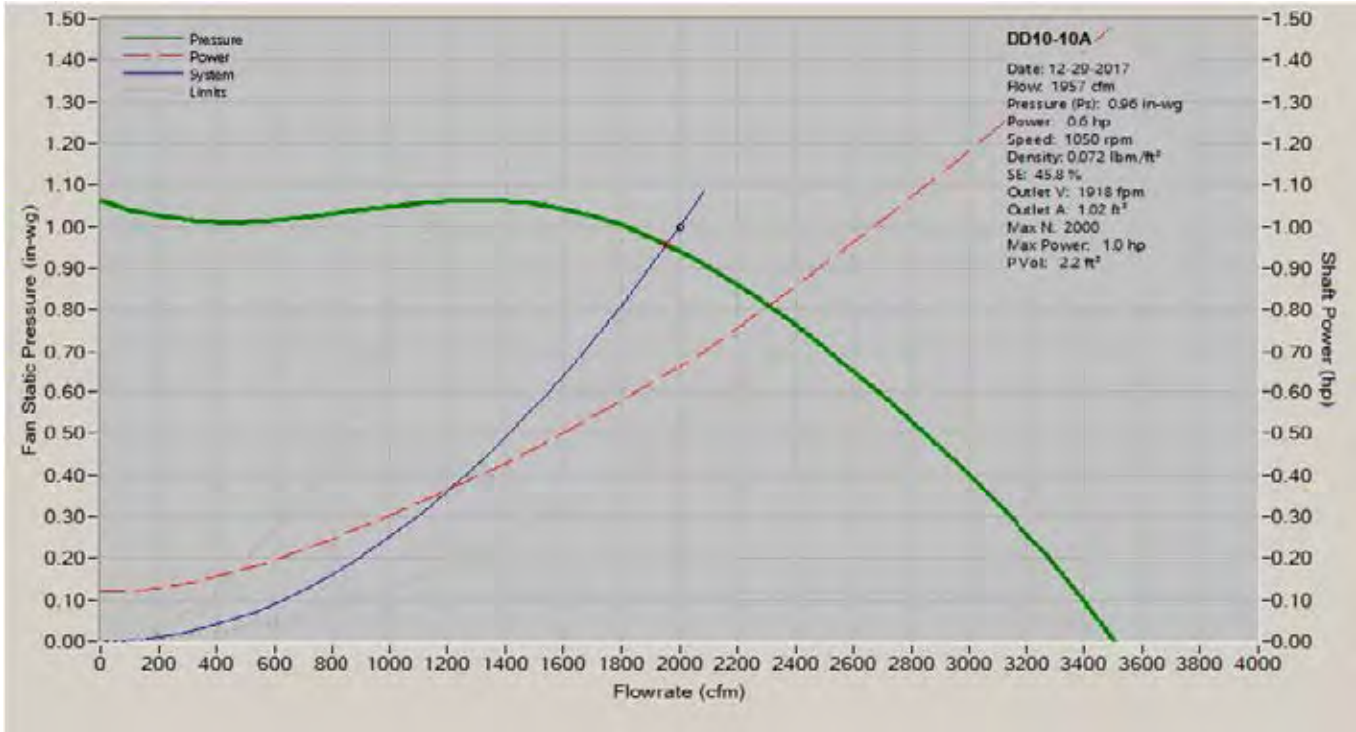


HIGH & ULTRA CFM UNITS

BLOWER CURVES
DVA-041, 1400 CFM



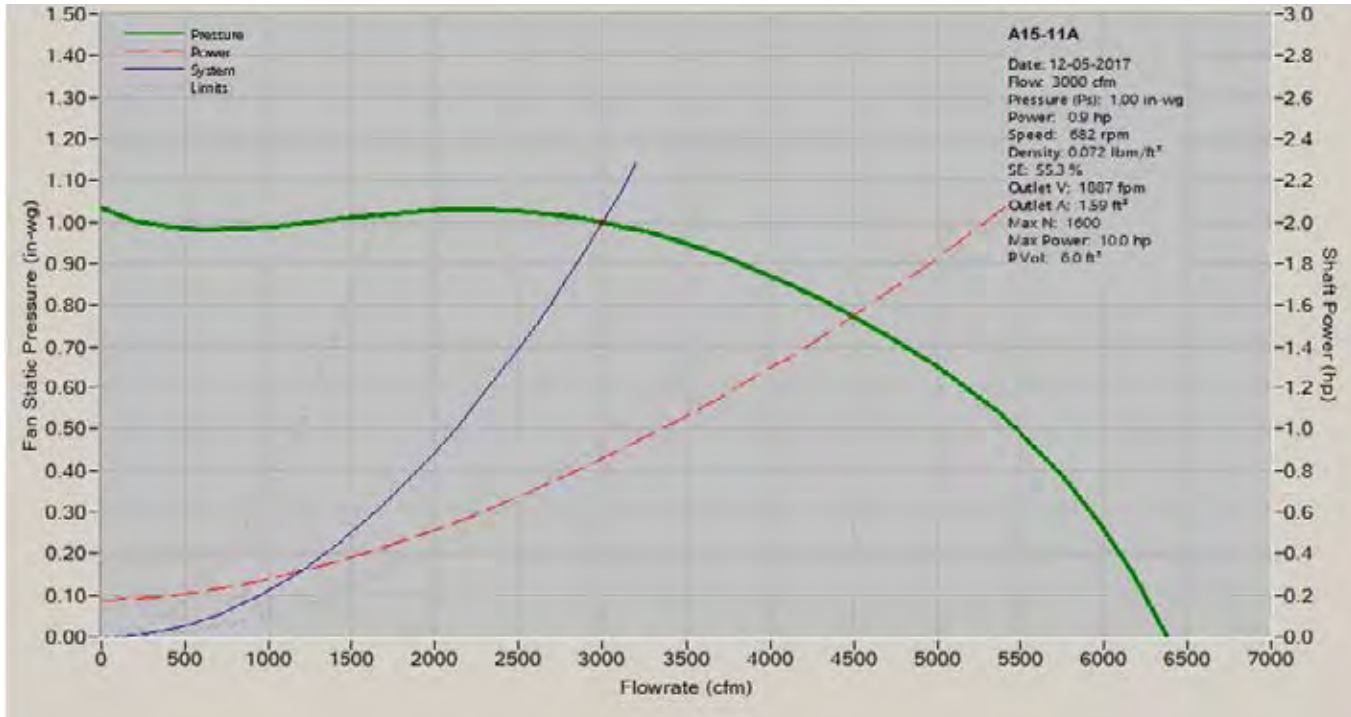
DVA-053, 2000 CFM



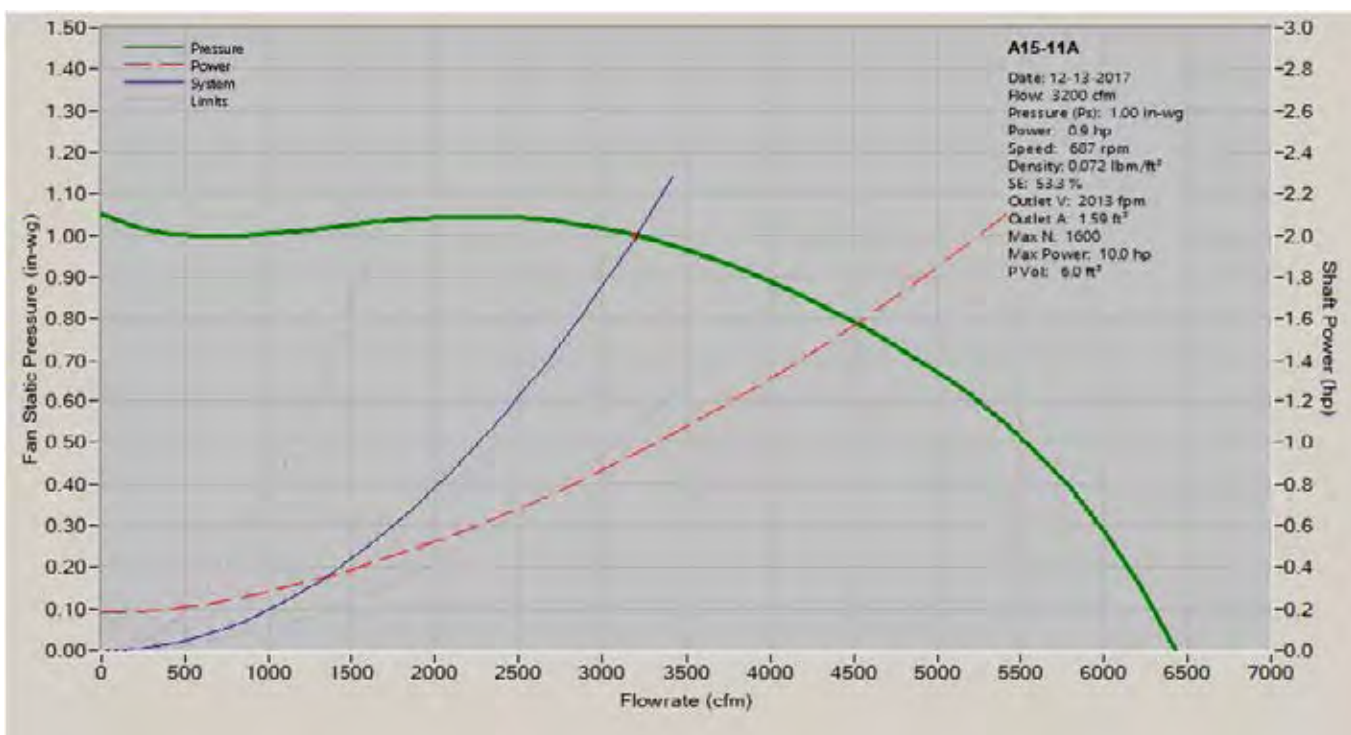
HIGH & ULTRA CFM UNITS

BLOWER CURVES

DVA-061,-073, 3000 CFM



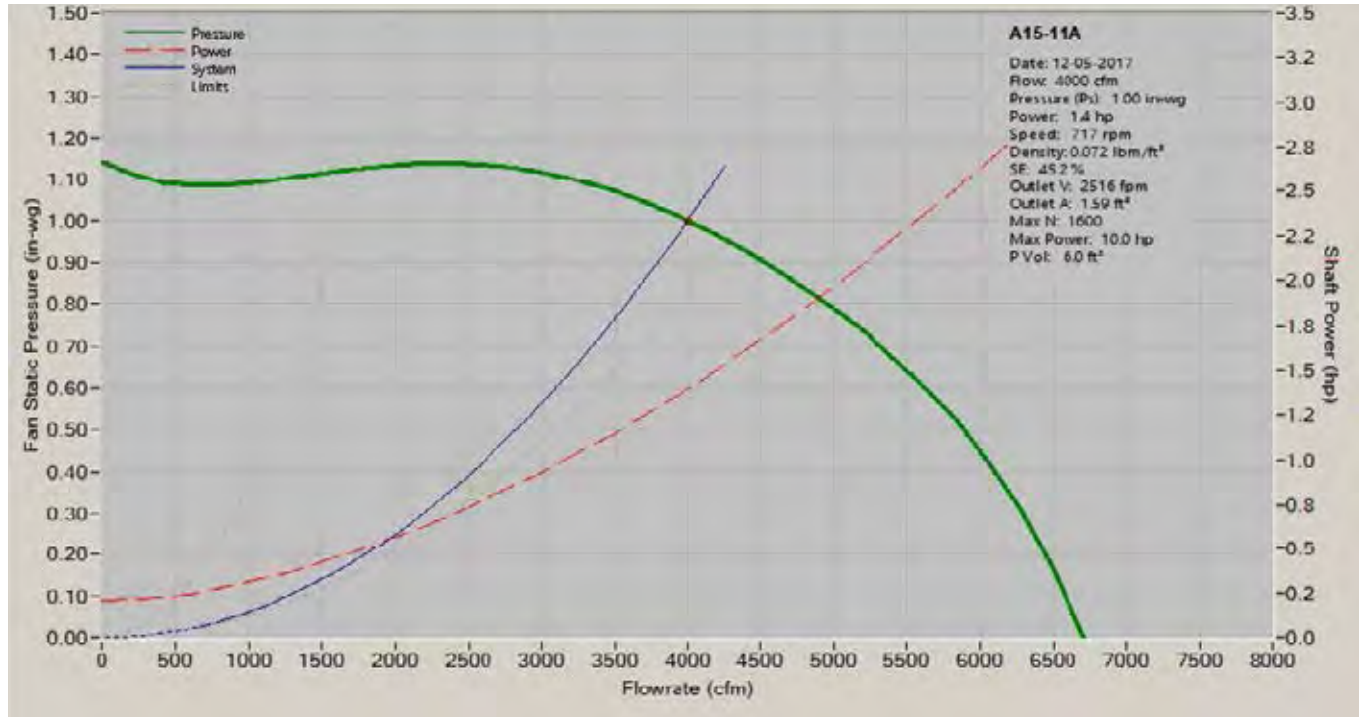
DVA-061,-073, 3200 CFM



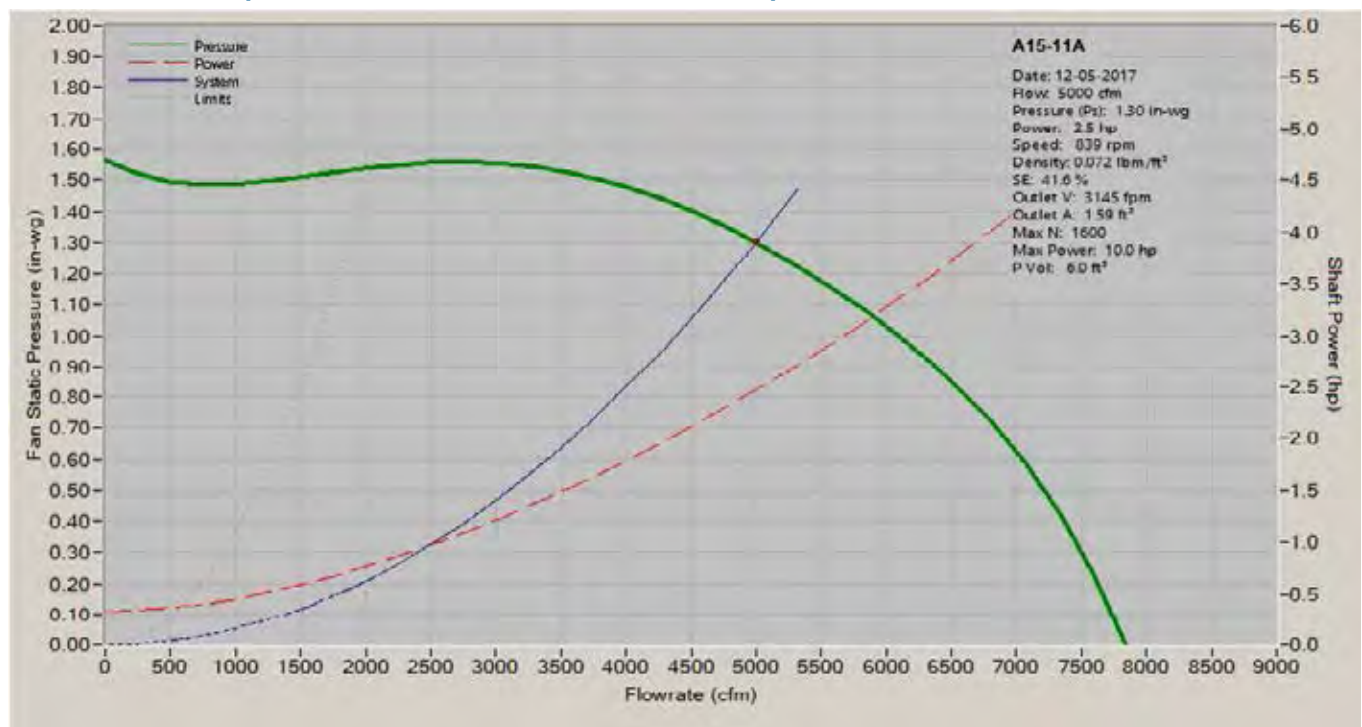
HIGH & ULTRA CFM UNITS

BLOWER CURVES

DVA-061, -073, -097, -110, 4000 CFM



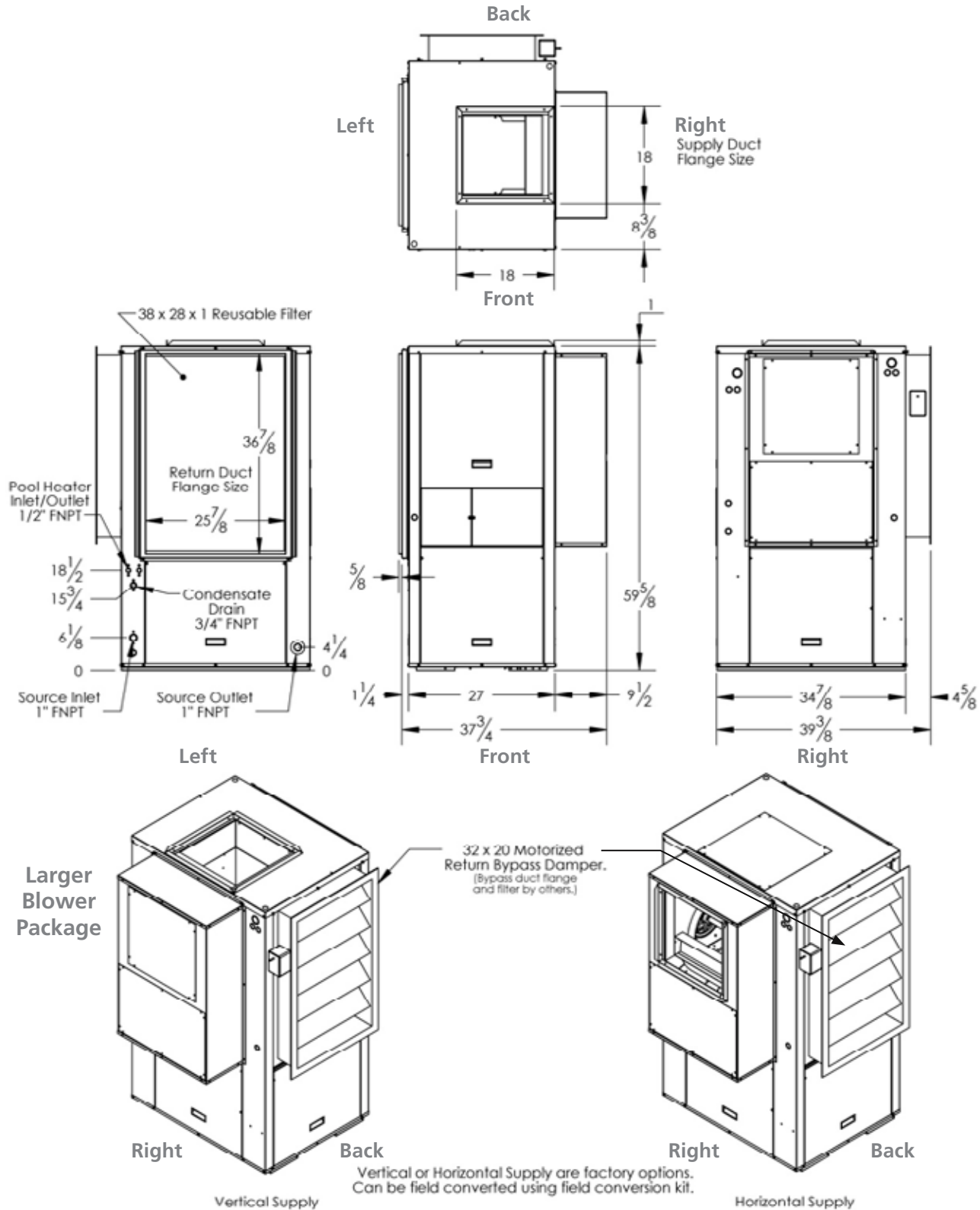
DVA-061 to -120, 5000 CFM and DVD-120 to -240: 10,000 CFM¹



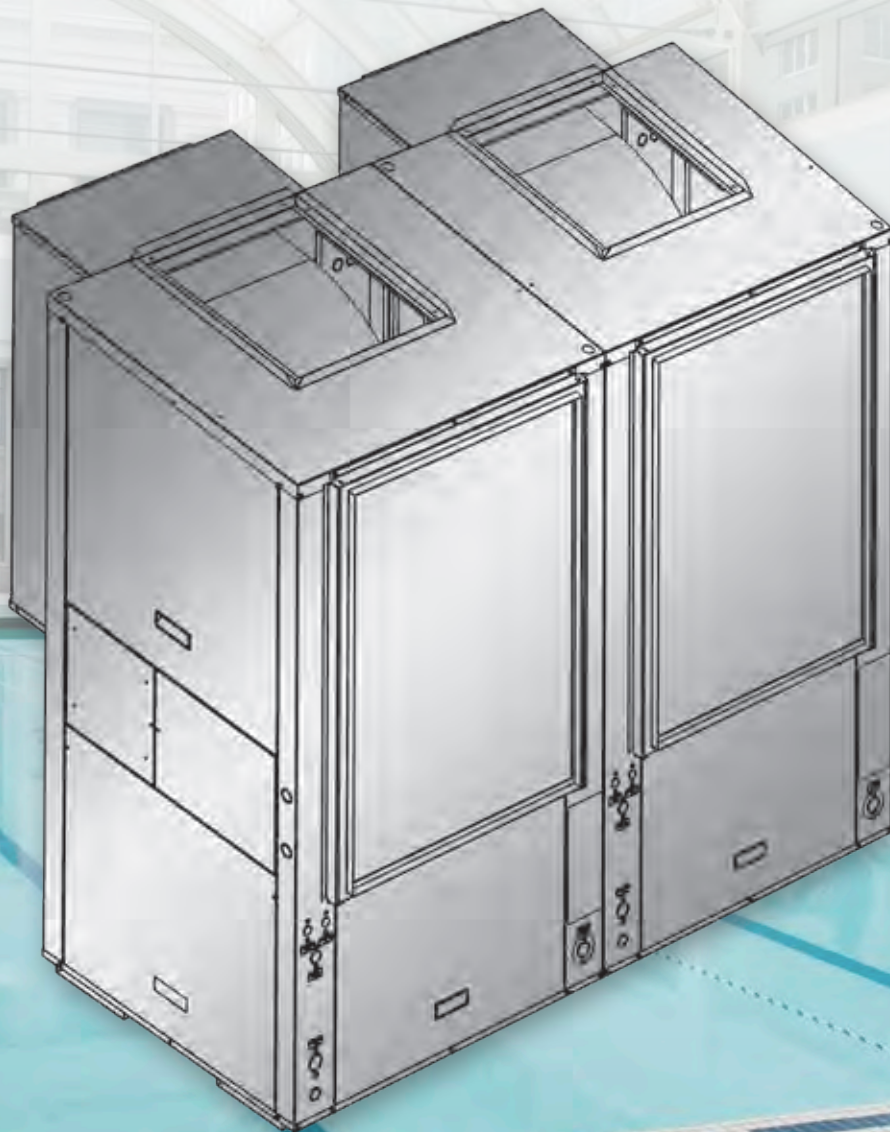
¹DVD units utilize two (2) 15 x 11 blowers operating in parallel for 2x flow and require the same ESP for each blower.

HIGH & ULTRA CFM UNITS

DXAIR SS SERIES DVA-061 to 120, HIGH CFM OPTION (5-10 TONS) Installed Dimensions



TAKE APART CONSTRUCTION (TAC) UNITS (10-20 TONS)



TAC UNITS

TAKE APART CONSTRUCTION (TAC) UNITS (10-20 TONS)

TAC units offer increased capacity in a modular footprint that makes them easy to move into spaces with limited entryways.

TAC PERFORMANCE DATA

Cooling Performance - Fluid Cooler ¹								
			Fluid Cooler Entering Water Temperature					
			59°F		77°F		86°F	
Model	Fluid Flow GPM	Airflow CFM	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER
DVD-120	30	4000	149,800	23.6	135,000	17.5	127,000	15.4
DVD-144	36	4800	165,800	22.3	149,000	17.9	140,400	15.8
DVD-196	40	6400	206,800	20.8	185,800	16.6	174,200	14.7
DVD-216	48	7200	232,600	20.1	211,200	16.3	199,600	14.7
DVD-240 ²	56	8000	267,200	21.9	233,600	17.0	219,200	15.0

¹Performance data was taken at noted water temperatures and return air conditions of 80.6°F Dry Bulb and 66.2°F Wet Bulb

²3 Phase only

Cooling Performance - Remote Condenser ¹											
		Remote Condenser Entering Air Temperature									
		80°F		85°F		90°F		95°F		100°F	
Model	Airflow CFM	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER	Capacity BTUh	EER
DVD-120	4000	133,400	17.9	127,000	16.1	120,600	14.3	116,500	12.9	111,400	11.4
DVD-144	4800	147,400	17.9	140,400	16.1	133,200	14.3	128,800	12.9	123,100	11.4
DVD-196	6400	183,700	16.6	175,000	14.9	166,100	13.3	160,500	12.0	153,500	10.6
DVD-216	7200	207,700	16.1	197,900	14.5	187,800	12.9	181,500	11.7	173,600	10.3
DVD-240 ²	8000	234,300	17.3	223,200	15.6	211,800	13.8	204,700	12.5	195,800	11.0

¹Performance data was taken at noted outside air temperatures and return air conditions of 80.6°F Dry Bulb and 66.2°F Wet Bulb

²3 Phase only

Dehumidification Performance			
		Moisture Removal @ Relative Humidity	
		50% RH lbs/h	60% RH lbs/h
Model	Return Air Temp F		
DVD-120	82	37.8	49.4
DVD-144	82	47.0	63.0
DVD-196	82	65.6	83.2
DVD-216	82	75.4	94.2
DVD-240	82	83.0	104.6



TAC UNITS

PHYSICAL DATA - TAC UNITS (10-20 TONS)

Model	SS DVD-120	SS DVD-144	SS DVD-196	SS DVD-216	SS DVD-240
Compressor					
Nominal Tonnage	10	12	16	18	20
Compressor Qty	2	2	2	2	2
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll
Max design pressure (psig)	450	450	450	450	450
Blower and Motor					
Nominal CFM	4000	4800	6400	7200	8000
Nominal External Static Pressure (in H ₂ O)	0.3	0.3	0.3	0.3	0.3
Blower wheel size (dia x w)	10 x 10 (x2)	10 x 10 (x2)	15 x 11 (x2)	15 x 11 (x2)	15 x 11 (x2)
Motor Type	PSC	PSC	Cap Start	Cap start	Cap Start
Motor HP	1 (x2)	1 (x2)	1 1/2 (x2)	1 1/2 (x2)	1 1/2 (x2)
Motor Speeds	3	3	1	1	1
Drive Type	Direct	Direct	Belt	Belt	Belt
Air Coils					
Coil Type	Tube and Fin	Tube and Fin	Tube and Fin	Tube and Fin	Tube and Fin
Fin Spacing (fins/in)	14	14	14	14	14
Coil Coating	ElectroFin	ElectroFin	ElectroFin	ElectroFin	ElectroFin
Evap Coil Dimensions (H" x W") (x2)	36 x 25 (x2)	36 x 25 (x2)	36 x 25 (x2)	36 x 25 (x2)	36 x 25 (x2)
Reheat Coil Dimensions (H" x W") (x2)	36 x 25 (x2)	36 x 25 (x2)	36 x 25 (x2)	36 x 25 (x2)	36 x 25 (x2)
Air Filter size (H" x W" x D") (x2)	38 x 28 x 1 (x2)	38 x 28 x 1 (x2)	38 x 28 x 1 (x2)	38 x 28 x 1 (x2)	38 x 28 x 1 (x2)
FC, Fluid Cooler Option					
Hx Type	Coaxial	Coaxial	Coaxial	Coaxial	Coaxial
Hx & Piping Water Volume (gal)	2.2	2.2	2.2	2.2	2.2
Min Flow (gpm) (1/2 each coil)	30	36	48	60	60
Refrigeration Charge					
R410A (lbs/oz) per circuit LC [DX]	6/4 [10/0]	6/4 [10/0]	6/4 [10/0]	7/0 [10/10]	7/0 [10/10]
DX, Remote DX Condenser Option					
Hot Gas connection size (in) (x2)	7/8 OD (x2)	7/8 OD (x2)	7/8 OD (x2)	7/8 OD (x2)	7/8 OD (x2)
Liquid connection size (in) (x2)	1/2 OD (x2)	1/2 OD (x2)	1/2 OD (x2)	1/2 OD (x2)	1/2 OD (x2)
Hot Gas line size @ 50ft max (in)	5/8 OD (x2)	3/4 OD (x2)	3/4 OD (x2)	7/8 OD (x2)	7/8 OD (x2)
Liquid line size @ 50ft max (in)	3/8 OD (x2)	3/8 OD (x2)	3/8 OD (x2)	1/2 OD (x2)	5/8 OD (x2)
Water connections, FNPT (in)					
Source Loop Hx	1	1	1	1	1
Condensate Drain	3/4	3/4	3/4	3/4	3/4
Pool Heater*	1/2	1/2	1/2	1/2	1/2
Weight- Shipping (lbs)	960	970	1080	1090	1100

Specifications subject to change.

***Note on "Pool Heater":** This is NOT 100% pool water heating. This is heat recovery/reclaim heating only. A standard pool heater is required for all systems as your primary source of pool heat.

Subject to change without prior notice 07-2020

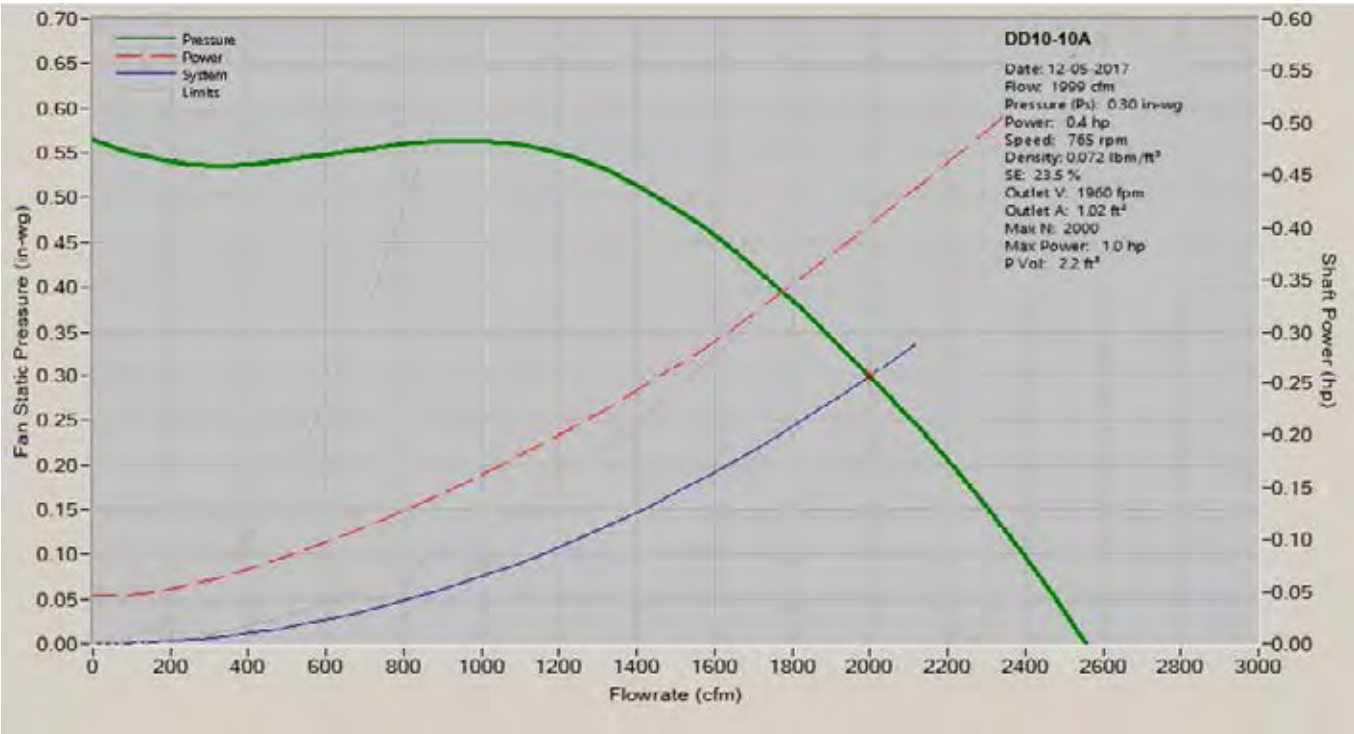
TAC UNITS

TAC ELECTRICAL

Model	Voltage	Voltage	Phase	Hz	Compressor		Blower	Total	Min.	Max Fuse
	Code				RLA	LRA	FLA	FLA	Ampac.	HACR
DVD-120	1	208/230	1	60	52.8	268	11.2	64.0	77.2	110
	2	208/230	3	60	32.0	220	11.2	43.2	51.2	75
	3	460/480	3	60	15.4	104	6.6	22.0	25.9	40
DVD-144	1	208/230	1	60	56.6	356	11.2	67.8	82.0	125
	2	208/230	3	60	41.0	310	11.2	52.2	62.5	90
	3	460/480	3	60	17.4	132	6.6	24.0	28.4	40
DVD-196	1	208/230	1	60	73.8	370	22.4	96.2	114.7	175
	2	208/230	3	60	46.4	328	10.0	56.4	68.0	100
	3	460/480	3	60	22.4	150	5.0	27.4	33.0	50
DVD-216	1	208/230	1	60	64.2	370	22.4	86.6	102.6	160
	2	208/230	3	60	50.0	328	10.0	60.0	72.6	110
	3	460/480	3	60	24.4	150	5.0	29.4	35.6	50
DVD-240	2	208/230	3	60	55.2	382	10.0	65.2	79.0	120
	3	460/480	3	60	25.6	200	5.0	30.6	37.0	55

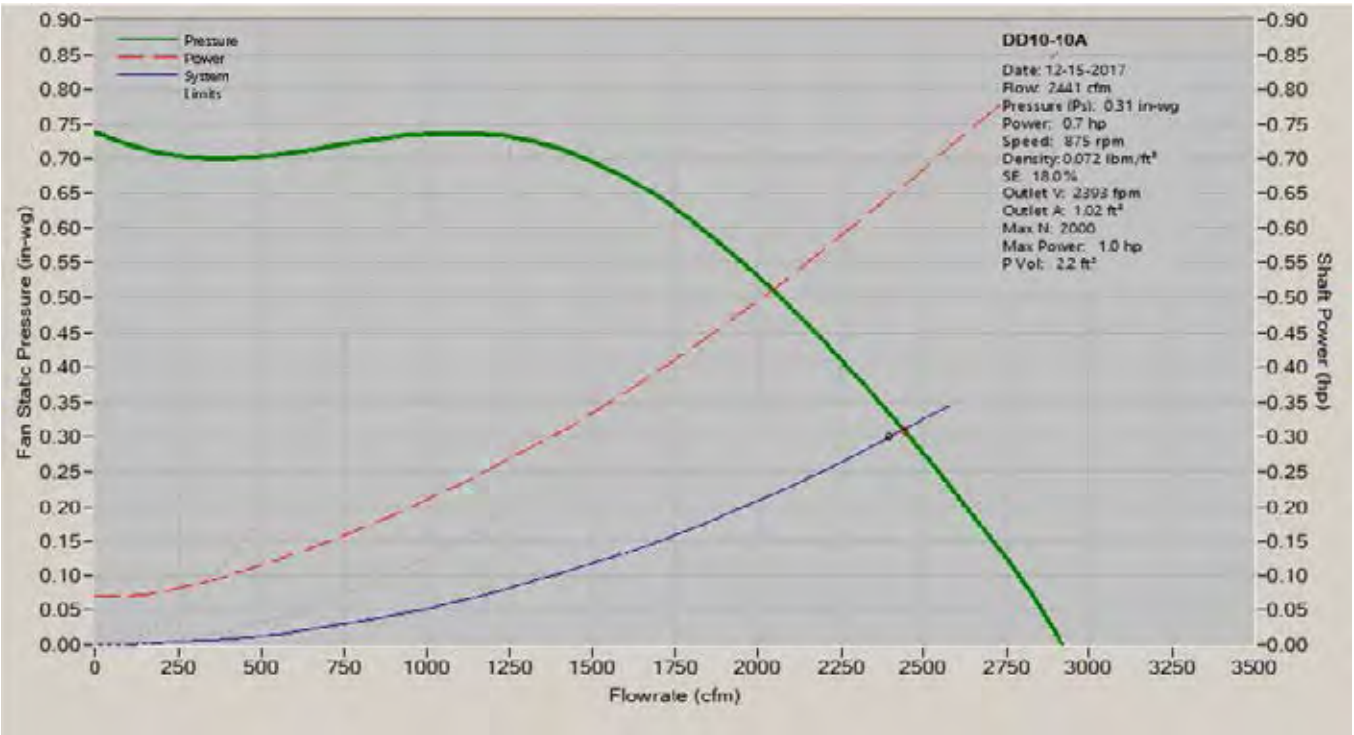
TAC UNITS

BLOWER CURVES
DVD-120, 4000 CFM¹



¹DVD units utilize two (2) blowers operating in parallel for 2x flow and require the same ESP for each blower.

DVD-144: 4800 CFM¹

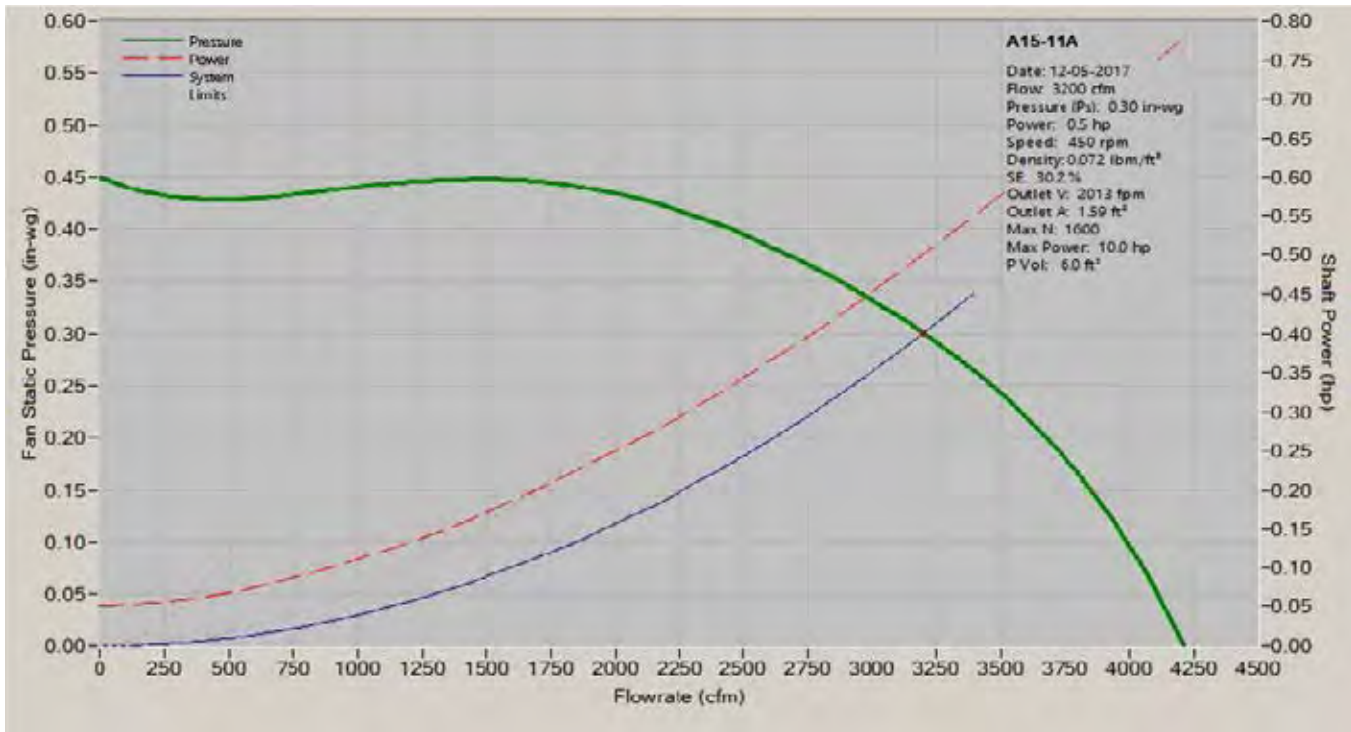


¹DVD units utilize two (2) blowers operating in parallel for 2x flow and require the same ESP for each blower.

TAC UNITS

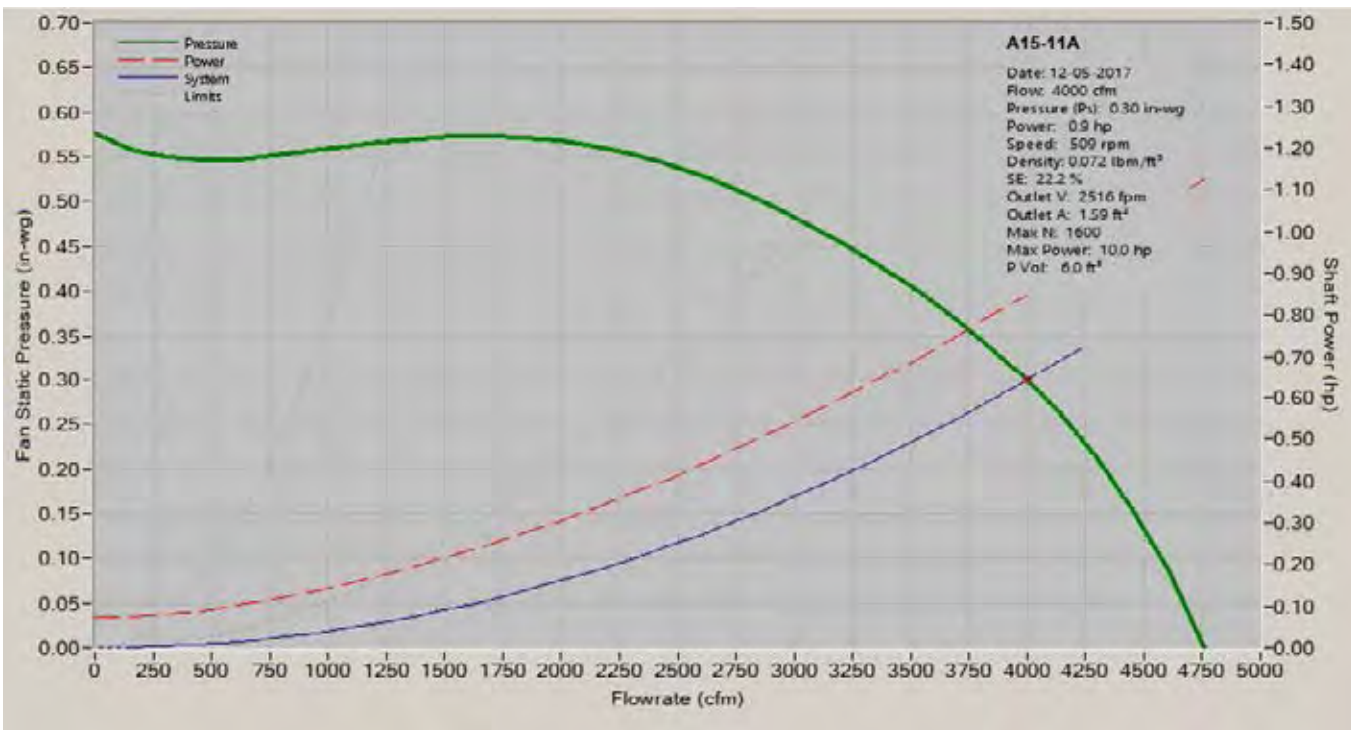
BLOWER CURVES

DVD-196: 6400 CFM¹



¹DVD units utilize two (2) blowers operating in parallel for 2x flow and require the same ESP for each blower.

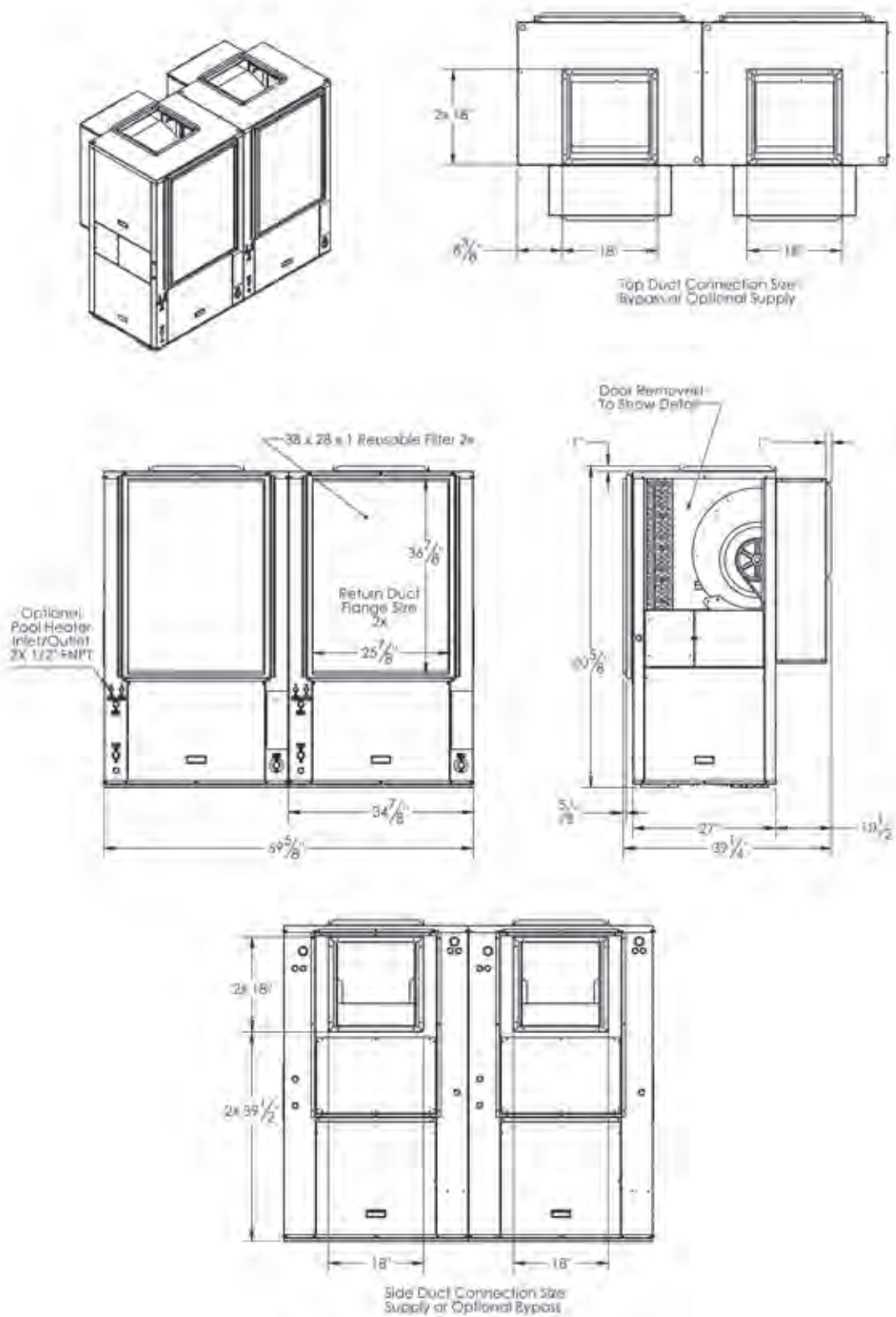
DVD-240: 8000 CFM¹



¹DVD units utilize two (2) blowers operating in parallel for 2x flow and require the same ESP for each blower.

TAC UNITS

DXAIR SS SERIES DVD-120 TO DVA-240 TAC UNITS (10-20 TONS)
Installed dimensions



GUIDE SPECIFICATIONS

All units conform to UL1995 Standard and are Certified to CAN/CAS C22.2 No 236 by Intertek-ETL.

1.0 General

Furnish and install as indicated on the plans with capacities and characteristics as listed in the schedule and the specifications that follow.

2.0 Fluid Cooled

The units shall be designed to operate with entering fluid temperatures between 50°F (10°C) and 100°F (38°C) in cooling.

2.01 Basic Construction

- A. Units shall have the air flow arrangement as shown on the plans. If units with these arrangements are not used, the contractor supplying the unit is responsible for any extra costs incurred by other trades and must submit detailed mechanical drawings showing ductwork requirements and changes or relocation of any other mechanical or electrical system. If other arrangements make servicing difficult, the contractor must provide access panels and clear routes to ease service. The architect must approve all changes 10 days prior to bid.
- B. All units shall have stainless steel drain pans to comply with this project's IAQ requirements. Painted steel or plastic is not acceptable.
- C. The cabinet shall be fabricated from 18 ga. 304 series stainless steel for superior corrosion protection.

All interior surfaces shall be lined with 1/2 inch thick, 1.5 lb. / density, Micromat insulation for thermal protection and acoustical attenuation. All insulation must meet NFPA 90A and 90B for fire protection and shall be certified to meet the GREENGUARD® Indoor Air Quality Standard for Low Emitting Products.

One blower access panel and two compressor compartment access panels shall be removable with supply and return air ductwork in place.

- D. Units shall have a suspended compressor with dual physical isolation. This shall consist of mounting the compressor to a heavy-gauge mounting plate with engineered vibration isolation grommets. This sub assembly shall then be attached to the base of the cabinet with additional engineered vibration isolation grommets for enhanced sound and vibration dampening.

The compressor shall be located in an insulated compartment physically separated from the air stream to further reduce sound transmission.

- E. Units shall have a washable 1-inch thick electrostatic return filter as standard. The filter rack shall incorporate a 3/4-inch duct flange to eliminate the need for a field installed duct collar.

The units shall have an insulated divider panel between the air handling section and the compressor section to minimize the transmission of compressor noise and to permit service testing without air bypass.

- F. Cabinets shall have separate holes and knockouts for entrance of line voltage and low voltage control wiring.

Supply and return liquid connections shall be 1-inch NPT brass female pipe thread fittings and mounted flush to cabinet exterior. Connections that require a backup wrench or extrude past the unit corner post are not acceptable.

Condensate connections shall be 3/4-inch NPT brass female pipe thread fittings and mounted flush to cabinet exterior.

- G. Evaporator Coils: All units shall have evaporator coils with a maximum of 4 refrigerant lines aligned perpendicular to the return airflow. Evaporator coils with more than 4 refrigerant lines are not allowed.

2.02 Fan and Motor Assembly

The fan motor shall be a 3-speed, permanently lubricated, Permanent Split Capacity (PSC) type with thermal overload protection. The motor shall have the capability to be wired for low, medium, and high speed.

- A. The fan shall be direct-drive or belt driven centrifugal forward curved type with a dynamically balanced wheel. The housing and wheel shall be designed for quiet low velocity operation. Direct-drive or belt driven fan is dependent on unit capacity and/or optional equipment.

2.03 Refrigerant Circuit

Units shall use R-410A refrigerant. All units shall have a factory sealed and fully charged refrigerant circuit with the following components:

- A. Compressors shall be hermetic motor scroll compressors specifically designed for R-410A refrigerant and shall be internally sprung, be externally isolated, and shall have integral internal thermal overload protection.
- B. Refrigerant metering shall be performed by balanced-port thermal expansion valves with external equalizer.
- C. Two finned air coil heat exchangers constructed of lanced and rippled aluminum fins not exceeding sixteen fins per inch bonded to rifled copper tubes in a staggered pattern.

Air coils shall have a 600 PSIG (4140 kPa) minimum working pressure.

One air coil shall be the evaporator. The other air coil shall be the condenser for the full dehumidification mode and shall be inactive in the full cooling mode.

Air coils shall have an ElectroFin coating to protect against salt air and other corrosive and chemical environments. This does not negate maintaining proper pool chemistry at all times.

- D. Cooling Diverting Valves shall be 4-way solenoid activated refrigerant valves which shall fail safe to the full dehumidification mode should the solenoid fail to function. Valves which fail to the cooling operation mode shall not be allowed.
- E. Liquid-cooled condenser heat exchanger shall be a coaxial (tube in tube) refrigerant to liquid heat exchanger. This exchanger shall be the condenser in the full cooling mode and shall be inactive in the full dehumidification mode.

It shall be of copper inner liquid tube and steel outer refrigerant tube design rated to withstand 600 PSIG minimum working refrigerant pressure and 400 PSIG minimum working liquid pressure.

The manufacturer will offer as a factory option a Cupro-Nickel liquid coil. The liquid tube of this optional refrigerant to liquid heat exchanger shall have cupronickel liner.

- F. Pool Heater coaxial (tube in tube) refrigerant to liquid heat exchanger shall be standard. It shall be of copper inner liquid tube and steel outer refrigerant tube design rated to withstand 600 PSIG minimum working refrigerant pressure and 300 PSIG minimum working liquid pressure. **PLEASE NOTE:** This is NOT 100% Pool Water Heating. This is Heat Recovery/Reclaim Heating only. A standard pool heater is required for all systems as your primary source of pool heat.

The manufacturer shall offer as a factory option a Cupro-Nickel pool heat recovery coil. The liquid tube of this optional refrigerant to liquid heat exchanger shall have a cupronickel liner.

- G. Safety controls shall include both a high pressure and low pressure switch.
 - 1. Low pressure cutout set at 40 PSIG (280 kPa) for loss of charge protection.
 - 2. High pressure cutout set at 600 PSIG (4125 kPa).
Temperature sensors shall not be used as safety controls.
- H. Access fittings shall be factory installed on high and low pressure refrigerant lines to facilitate field service.
- I. Activation of any safety device shall prevent compressor operation via a lockout circuit. The lockout circuit shall only be reset by interrupting power at the contractor-supplied disconnect switch. Units which may be reset via thermostat controls shall not be acceptable. Refer to subsequent Solid State Lockout Controller section for additional requirements.

2.04 Electrical

Controls and safety devices shall be factory wired and mounted within the unit. Controls shall include blower relay, compressor contactor, 24Vac transformer, mode-change relay and dual-function timer, diverting valve coil, and Solid State Lockout Controller (SSLC). The standard transformer shall be rated for a minimum 100 VA and shall have a push button reset circuit breaker on the secondary power. All units shall be name-plated for use with time delay fuses or HACR circuit breakers. Unit controls shall be 24Vac. 24Vac control connections shall be labeled by function code to allow for ease of field wiring. Field wiring of supply voltage shall be directly to the compressor contactor.

The electrical control system function codes are as follows:

1. H = Dehumidification mode.
2. Y = Cooling mode.
3. G = Blower.
4. R = 24Vac power
5. F = Fault, 24Vac output, 0.50amp maximum
6. P = Pump output, 24Vac, 0.25amp maximum
7. D = Damper output, 24Vac, 0.25amp maximum
8. C = Common, chassis ground.
9. W = Heat mode (optional)

The electrical control system provides the following functions:

Function	Control Connections	Comment
Dehumidification mode	R connected to H	–
Cooling Mode	R connected to Y	–
Heat Mode (optional)	R connected to W	–
Blower only	R connected to G	–
Fault indication	F	F is energized whenever the SSLC is in lockout.
Pump output	P	Energized when unit is in the Cooling or Heat modes. De-energized when unit is in Dehumidification mode.
Damper output	D	Energized when unit is in Dehumidification mode.

Notes:

1. Cooling mode has priority over dehumidification mode. A dual-function timer and the mode-change relay work together to allow the SSLC to provide anti-short cycle delay times between mode transitions.
2. Blower operates continuously with R connected to G. Blower also operates continuously in Dehumidification, Cooling, or Heat modes.

2.05 Solid-State Lockout Controller (SSLC)

All units shall have a Solid State Lockout Controller with the following features:

1. Random start time delay on initial power.
2. Anti-short cycle time delay (5 minute delay on break).
3. High refrigerant pressure lockout.
4. Low refrigerant pressure lockout.
5. 24 VAC alarm output for remote fault indication.
6. Test mode (reduces all time delays to 5 seconds for diagnostic work).
7. Lockout reset on power reset.

The SSLC will begin the 5-minute anti-short cycle time delay after a Y call ends, after a H call ends, after transition from cooling to dehumidification, or after transition from dehumidification to cooling. After the time delay, the contactor will energize as long as the high and low pressure switches are closed along with a Y or H call. If either switch is open after the delay, the contactor will not energize. If either switch opens while the contactor is energized, the contactor will de-energize immediately, and SSLC will begin the anti-short cycle delay. The contactor will not be allowed to energize again until the anti-short cycle delay and both pressure switches are closed. If SSLC has three high pressure or low pressure switch faults in a 60-minute period, it will lock out the contactor and energize the fault output. A manual reset of power will be required to reset the lockout condition.

The SSLC has a status LED to indicate which type of fault or lockout has occurred. If a high pressure fault or lockout occurs, the status LED will blink once. If a low pressure fault or lockout occurs, the status LED will blink twice.

2.06 Installation and Operation Considerations

A. Condensate Drain Piping

Condensate piping can be made of steel, copper or PVC pipe. In most cases, PVC Pipe eliminates the need to wrap insulation around the pipe to prevent sweating.

A $\frac{3}{4}$ " FPT condensate drain connection is installed in the unit. The condensate piping must be trapped at the unit and pitched away from the unit not less than $\frac{1}{4}$ " per foot. A vent is required after the trap so that the condensate will drain away from the unit. This vent can also act as a clean out if the trap becomes clogged. The condensate drain should NOT be directly piped to a drain/waste/vent stack. Check your own local codes for correct application of condensate piping to drains.

B. Low Temperature Well Water

When low temperature well water (LIQUID COOLED SYSTEM) is utilized as the liquid source (below 55 Degrees F), a means of establishing two flow rates, one for the cooling/reheat mode and one for the heating mode is recommended. IN the cooling mode at low entering liquid temperatures and standard flow rates, discharge pressures and corresponding discharge gas temperatures are relatively low. At these conditions when the reheat mode is initiated, the lower temperature discharge gas can reduce reheat capacity. A means to reduce the liquid flow rate and elevate the discharge pressure/temperature in cooling/reheat mode should be provided. The simplest way to accomplish the above is to install liquid modulating valves.

C. Serviceability

All units are designed to be serviced from the front of the unit. Schrader valves for high and low pressure gauges and the electrical box components are easily accessible for diagnosing and servicing the unit. Insulated bulkheads in all units, separate the compressor section from the blower section, allowing the unit to be serviced during operation.

Do not install units in any unconditioned space, crawl spaces, under the pool, closets, garages, above ceilings, attic spaces, spaces accessed by a trap door or limited access.

These units must be checked and serviced on a regular basis; installing them in areas where they are not accessible to the end user and preventive maintenance leads to problems with service and maintenance.

Separate electrical knockouts in the unit corner post allow for easy and safe routing of high and low voltage lines to the inside of the cabinet.

D. Unit Location

DO NOT STORE Pool equipment and/or pool chemicals in the mechanical space designed for the DXAir Dehumidification System. Failure to follow these instructions may void your warranty as chemicals are highly corrosive and destructive to any HVAC system.

Any mechanical device will, at some point in time, require servicing and repair. With this in mind, sufficient mechanical space must be designed and sufficient clearances around each horizontal and vertical unit must be provided. 30-36" clearance is required around the unit and access panels.

Proper clearances for installation of peripherals and space must be allowed for the proper duct work installation. Choking down ductwork in this mechanical space will have negative air flow effects for your pool room. Sufficient space must be provided for filter replacement and access to the compressors. Units should be set on a piece of rubber, neoprene or other vibration absorbing material at least $\frac{1}{3}$ - $\frac{1}{2}$ " thick. The pad should extend $\frac{3}{4}$ " over the entire base of the unit. Avoid direct line of sight to the unit. Install a sound baffle over any door that has a return air grille.

E. Sound

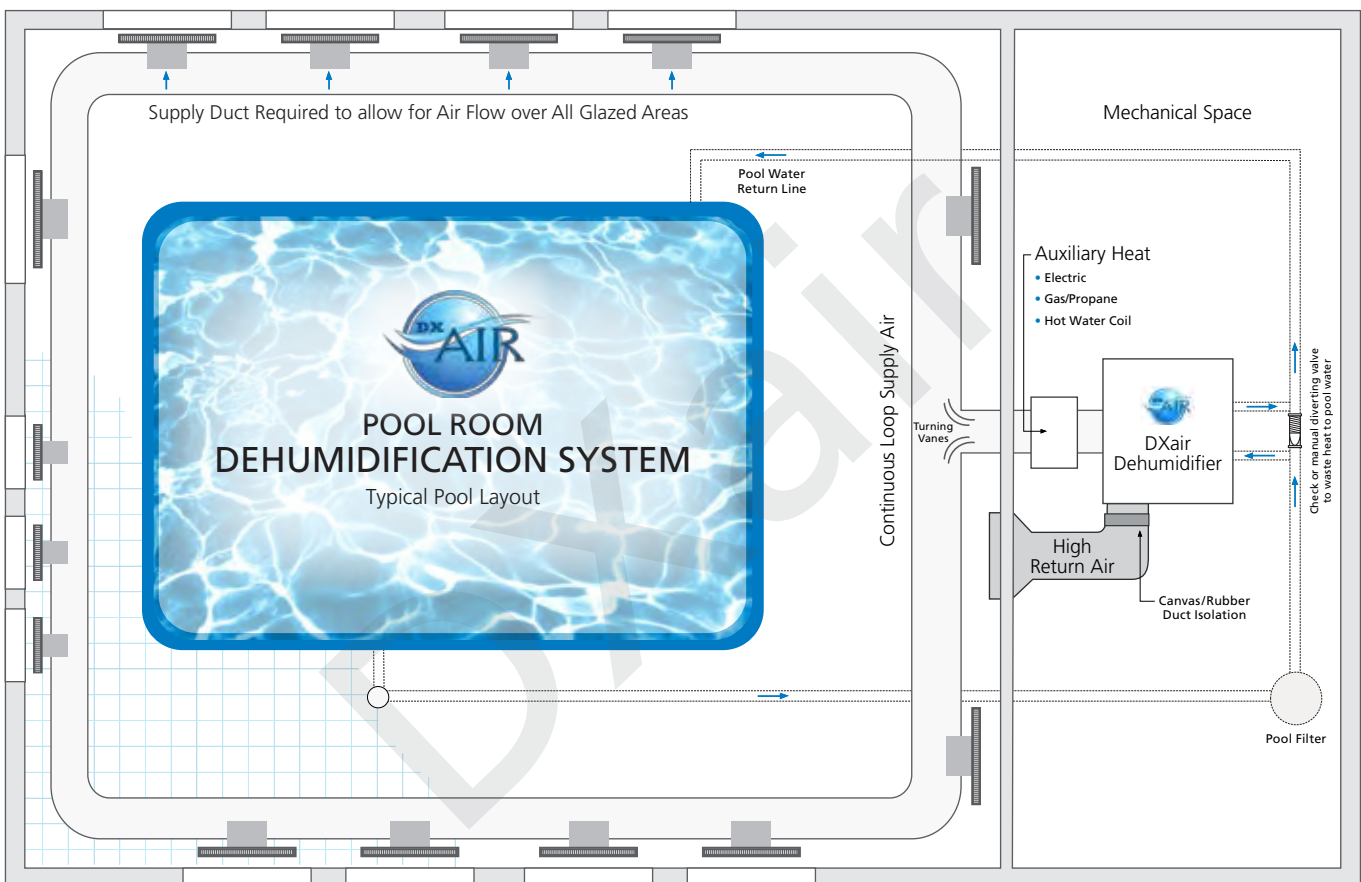
Sound is becoming an increasingly important factor in all HVAC Installations. Most of the problems associated with HVAC generated noise can be avoided by paying close attention to the equipment placement in properly designed mechanical space and the duct work/air delivery system.

F. Duct Work/Air Delivery System

DXAir requires a very high standard of duct system for all our systems. All specifications for the air delivery system must be met. All ASHRAE and ACCA Manuals pertaining to properly designed and sized duct work must be followed as well. Proper air delivery design and air turnover rates are critical to maintaining the required temperatures and relative humidity within the environment. Overhead or underground ducting can be used. A continuous loop of duct work is recommended at a .20 static on supply and .07 on one high return air. High supply, low return, low supply high return is recommended in all installations.

All diffusers should be double deflection linear diffusers and must move proper air flow to all glass/skylights and other surfaces that are prone to reaching Dew Point Temperature when the outdoor temperature falls below indoor pool room temperature. Diffusers are not designed to "blow down" across an open pool, nor are they to be installed in walls between windows blowing across an open pool. All diffusers must be deflected at the glass areas to prevent condensation. Where duct work cannot prevent stratification, ceiling fans blowing up are recommended. All skylights must be addressed with air flow via duct work or ceiling fans blowing up. No Fiberboard or flex duct should be used in the air delivery system unless approved in writing by DXAir engineering.

EXAMPLE AIR DELIVERY – DUCT SYSTEM LAYOUT FOR ALL DXAIR SYSTEMS



NOTE: Example Drawing only not to scale. This example is underground ducting with a high return air. Overhead ducting would utilize a low return air. Note all diffusers are deflected at all glass surfaces to move warm air and prevent condensation. DXAir will provide engineering and shop drawings for the air delivery system for your project.



DXair SS Series
Guide Specifications

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DXair is not a licensed architectural firm, not a licensed mechanical engineering firm or installation contractor. We do not provide building loads (Sensible/Latent) for any natatorium. This information must be provided by customer for proper sizing of the system to your design requirements. Our 'engineering' consists of calculations based on pool room data for evaporation rate at design temperatures and RH, supply air/return air cfm, outside air requirements, and negative pressure for the space. Please provide mechanical schedules for all projects (new or retrofits) when requesting a quote for new construction or quotes for retrofitting an existing natatorium. If only competitor specs are provided and no building loads are obtained, DXAir will not be liable or responsible for any undersizing or oversizing, or lack of performance due to lack of information.

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