

**PACKAGE UNITS**  
**WRPH SERIES (3.5 - 40Ton)**

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## Product Introduction

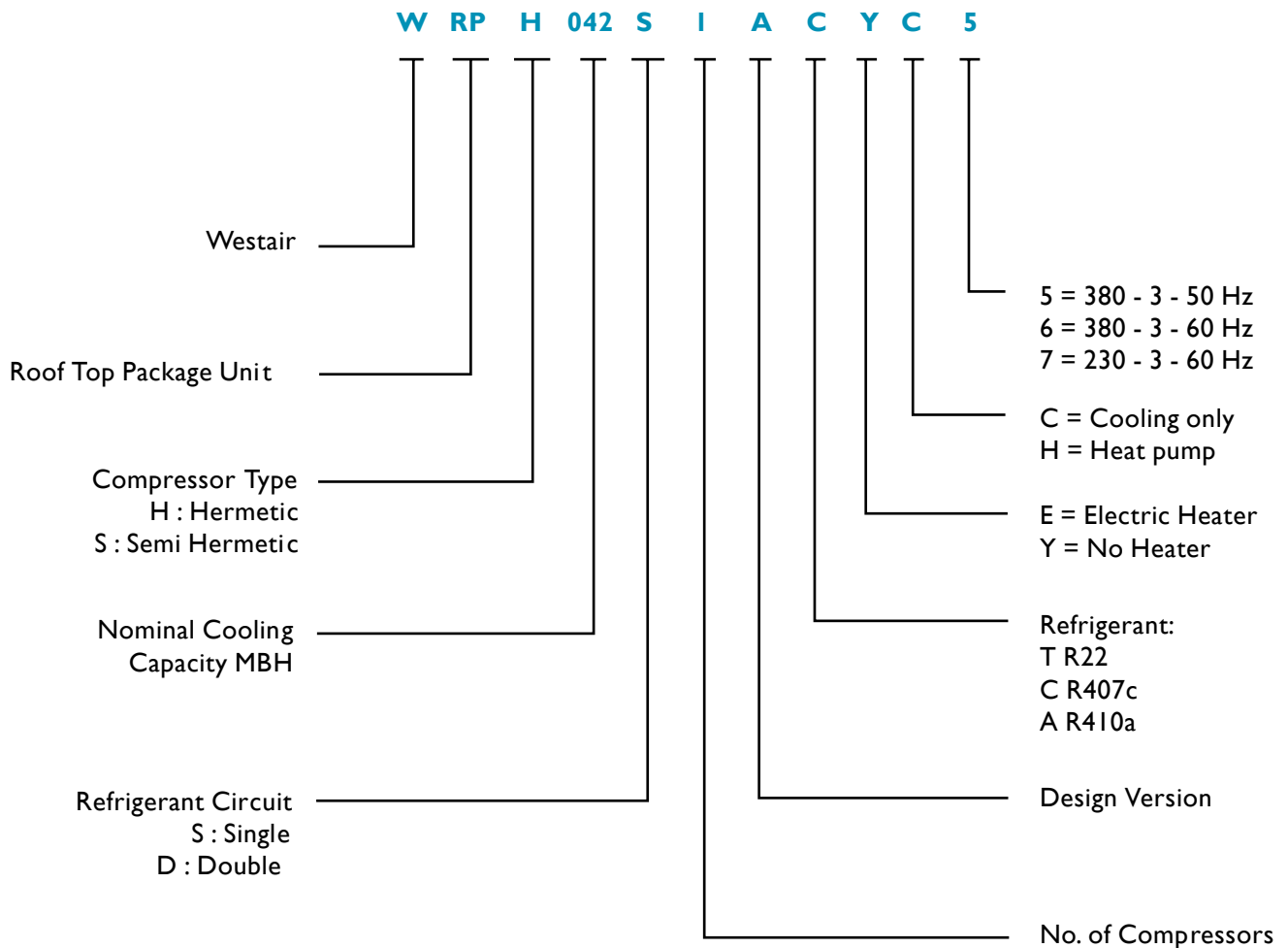
Westair WRPH (3.5 - 40 Ton single or multistage) Roof Top Package Units designed for efficient operation all year round, low noise, flexibility and low installation cost with integral electrical heater (optional) for all Residential and Commercial applications like homes, hotels, museums, shopping malls, office buildings, hospitals and all other similar applications.

Westair WRPH Roof Top Package Units are specially designed and rated for operation at high ambient temperatures up to 52°C by using well sized evaporator & condenser coils.

Westair WRPH are shipped from the factory completely assembled & fully charged with the suitable charge of refrigerant R22, R407c or R410a to minimize the field work to duct work, electrical power connection, thermostat and drain connection.

The standard version designed for air conditioning only & can be supplied as heat pump or with electric heater for heating.

## Model Nomenclature



## Quality Assurance

Units designed and manufactured under the supervision of Westair Industries - USA with full compliance to Westair industries - USA quality control system. Units are rated in accordance with ARI 340 / 360 - 2004 standards. Fans are rated in accordance with AMCA 211 - 05 standards. Units manufactured in ISO 9001 certified facility. All units will be run tested at the factory before shipment.

## Features & Benefits

### Unit Construction

The unit is constructed of powder coated galvanized steel sheets for maximum weather protection and based on a coated C channel steel base with lifting lugs. The evaporator section is insulated with 1/2 inch PE insulation and provided with access doors for fan and filter sections. The access doors are insulated to the same standard of the evaporator section casing.

### Evaporator Coil

Coils are constructed of 3/8 inch inner grooved copper tubes mechanically expanded into louvered aluminum fins for maximum heat transfer efficiency. The coils are tested for a maximum operating pressure of 350 psi.

### Evaporator Fan & Motors

Units are supplied with forward curved DIDW centrifugal fans Direct Driven (for size 42 and 50) and belt driven for all other sizes. Motors are single phase permanent split capacitor (for size 42 & 50) and 3-phase induction type TEFC motor for all other sizes fan and motor assembly will be mounted on rubber / spring vibration isolators.

### Compressors

Units are designed to have 1, 2 or 4 high efficiency Copeland scroll compressors designed for operation at high ambient conditions with low power consumptions. Each compressor is equipped with internal thermal protection as standard and crank case heater (where required depending on the compressor model).

### Condenser Coils

Coils are constructed of 3/8 inch inner grooved copper tube mechanically expanded into louvered aluminum fins for maximum heat transfer. The coils are sized for efficient heat transfer at high ambient conditions (up to 52°C) and are equipped with coil guards. For protection from external damage, coils are tested for a maximum operating pressure of 450 psi to insure reliable operation under all weather conditions.

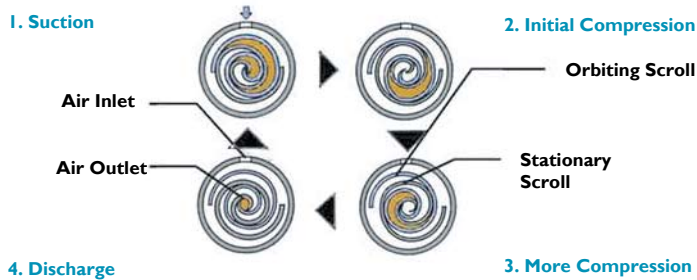
### Condenser Fans & Motors

All condenser fans are of the propeller type, which are directly mounted on the motor shaft. All fans are selected for optimum efficiency for maximum sound power reduction. Fan blades are made of aluminum for maximum corrosion resistance, and are statically and dynamically balanced before installation. This fan mounting design offers low noise operation with high efficiency. All condenser fans are equipped with wire guards.

## Features & Benefits (continued)

### Compressor

WRPH units are designed to have 1, 2 or 4 high efficiency scroll compressors for operation at high ambient conditions with low power consumptions. Each compressor is equipped with internal thermal protection as standard and crank case heater (where required depending on the compressor mode). Scroll compressor has two scrolls that are both located in the upper part of the compressor above the motor; the fixed scroll and the orbiting scroll. During a refrigeration cycle, the refrigerant gas shall be processed by the compressor by passing three consequencing orbits: Compressions and Discharge Orbits.



**The principle of scroll compression process can be simply described as follow:**

- Refrigerant enters the compressor at the suction connection.
- The refrigerant flows around the motor housing and enters at the bottom side through the openings. Oil droplets separate from the refrigerant and fall in to the oil sump.
- All suction refrigerant passes through the electrical motor, ensuring full motor cooling.
- After the refrigerant enters the scroll elements:
  - The center of the orbiting scroll describes a circular path around the center of the fixed scroll.
  - The type of movement creates compression pockets between the two scrolls.
  - Low pressure suction gas is trapped in peripheral pocket as it is formed; continued motion of the orbiting scroll seals the pocket which decreases in volume as the pocket moves towards the center of the scroll.
- Maximum compression is achieved when a pocket reaches the center where the discharge port is located.
- This happens after three complete orbits.
- The compression is a continuous process: when gas is being compressed in the second orbit, another quantity of gas enters the scrolls and another quantity being discharged, all at the same time.
- A check valve is located directly above the fixed scroll discharge port. This prevents the compressor from running backwards after the power has been switched off.
- Finally the discharge gas leaves the compressor at the discharge connection.

### Refrigerant Circuits

Each unit has one or two independent refrigerant circuit (for size 120 & above) each circuit will have one or two compressors depending on the size of the unit. Each refrigerant circuit will have high & low pressure protection thermostatic expansion valve, sight glass, charging port, solenoid valve and all necessary components for smooth & reliable operation.

### Power & Control Panel

Each unit is suitable for single entry power connection with all internal wiring completed at the factory to minimize the field work. Units will be equipped with all necessary start up devices for compressors and fan motors. The controller of the unit will be supplied wired & programmed & ready for operation. No more programming or internal wiring will be required at site.

### Filters

Units will be supplied as standard with a full set of 1 inch permanent aluminum washable filter class G2.

## Optional Features

Units can be provided with any of the following features as optional (please contact Westair or its local representative for availability of these options at the time of order).

- Main disconnect switch
- Condenser coating
- Evaporator coating
- Bag filters
- Mixing box
- Economizer section
- Double skin evaporator section
- Indoor Thermostat

## Working Range

Models	No of Fans	Condenser Air Inlet Temperature		Evaporator Air Inlet Temperature	
		Maximum	Minimum	Maximum	Minimum
WRPH-042	1	52°C DB 125°F DB	21°C DB 70°F DB	32°C DB / 23°C WB (89.6°F DB / 73.4°F WB)	21°C DB / 15°C WB (69.8°F DB / 59°F WB)
WRPH-050					
WRPH-062					
WRPH-042					
WRPH-075					
WRPH-105					
WRPH-120	2	52°C DB 125°F DB	21°C DB 70°F DB	32°C DB / 23°C WB (89.6°F DB / 73.4°F WB)	21°C DB / 15°C WB (69.8°F DB / 59°F WB)
WRPH-150					
WRPH-210					
WRPH-250	3				
WRPH-310					
WRPH-360					
WRPH-420	4	52°C DB 125°F DB	21°C DB 70°F DB	32°C DB / 23°C WB (89.6°F DB / 73.4°F WB)	21°C DB / 15°C WB (69.8°F DB / 59°F WB)
WRPH-500					

## ROOFTOP PACKAGE UNIT (50HZ MODEL) SPECIFICATIONS

MODEL		PACKAGE	042	050	062	075	105	120	150	210	250	310	360	420	500	
Nominal Cooling Capacities at 35°C Outdoor temperature*	Cooling	Btu/h	43,333	53,277	62,771	79,701	113,409	122,102	169,114	224,860	256,856	317,302	381,970	439,448	501,532	
		kW	12.90	15.59	18.38	23.36	33.24	35.79	49.56	65.89	75.26	93.00	111.93	125.32	146.98	
		kca/h	11,089	13,407	15,801	20,086	28,579	30,771	42,616	56,653	64,718	79,965	96,245	107,762	126,386	
Nominal Cooling Capacities at 46°C Outdoor temperature*	Cooling	Btu/h	39,685	49,042	57,416	72,602	104,209	111,378	154,794	205,834	232,768	284,646	347,982	401,922	454,504	
		kW	11.84	14.36	16.82	21.28	30.54	32.62	45.34	60.32	68.20	83.41	101.96	113.80	133.21	
		kca/h	10,181	12,349	14,466	18,296	26,260	28,049	38,987	51,865	58,644	71,724	87,676	97,858	114,541	
Power Supply (V/Ph/Hz)		V/Ph/Hz	380 ~ 415 / 3 / 50													
		Ph	3													
Refrigerant Type		R-22														
Refrigerant Charge		kg.	3.49	3.41	4.34	4.76	8.02	8.75	9.72	14.75	19.54	18.94	29.34	28.81	37.48	
Outer Dimension	Height	inch	25	25	25	29	35	39	39	60	60	60	75	75	85	
	Width	inch	40	40	40	40	40	55	55	75	75	75	80	80	86	
	Depth	inch	58	58	58	65	65	84	81	77	97	97	97	97	105	
Casing	Material	Electro - galvanize Steel														
	Finish	Powder Paint														
Refrigerant Type		R-22														
Flow Control		Thermostatic Expansion Valve														
Number of Circuit		1 1 1 1 1 2 2 2 2 2 2 2 2 2 2														
CONDENSER SECTION	Compressor	Model	ZR 48KC-TFD	ZR 61KC-TFD	ZR 68KC-TFD	ZR 94KC-TFD	ZR 125KC-TFD	ZR 68KC-TFD	ZR 94KC-TFD	ZR 125KC-TFD	ZR 144KC-TFD	ZR 190KC-TFD	ZR 216KC-TFD	ZR 250KC-TFD	ZR 288KC-TFD	
		Qty	1	1	1	1	1	2	2	2	2	2	2	2	2	
		Compressor Type	Hermetic Scroll													
		Rated Current	A	10.7	12.6	16.6	17.6	28.2	16.6 x 2	17.6 x 2	28.2 x 2	32.6 x 2	43.2 x 2	53.2 x 2	51.2 x 2	65.2 x 2
		Vibration Isolator	Rubber													
	Protection Device	Auto Reset Thermal Overload														
	Fan	Number of Fan Per Unit	Qty.	1	1	1	1	1	2	2	2	2	2	2	2	
		Fan Type/Drive	Propeller Fan													
		Blade Material	Aluminum													
	Motor	Number of Motor Per Unit	1	1	1	1	1	2	2	2	3	3	4	4	4	
		Motor Type														
	Coil	Tube	Material	Inner Groove Copper Tube												
			Diameter	inch	3/8											
		Fin	Material	Louver fin Aluminum												
			Row	2	2	3	3	3	3	3	3	3	3	3	3	3
Fin per inch			13	13	13	13	13	13	13	13	13	13	13	14	14	14
Number of Coil Per Unit	1	1	1	1	1	2	2	2	2	2	2	2	2	2		
Surface Area	ft <sup>2</sup>	9.57	9.57	9.57	11.55	15.6	19.14	23.1	26.68	40.67	40.67	54.3	71.25	90		
Fan Nominal Air Flow		CFM	1200	1500	2000	2400	3500	4000	5000	6500	8300	9200	12000	13500	15600	
EVAPORATOR SECTION	Drain	Condensate Drain	Female Piping Thread Screw													
		Size	FTP	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1	1	1	1	1	1
		Qty	1	1	1	1	1	2	2	2	2	2	2	2	2	
	Fan	Number of Fan Per Unit	Qty.	1	1	1	1	1	2	2	2	2	2	2	2	
		Fan Type/Drive	Centrifugal / Direct Drive / Belt Drive													
		Blade Material	Galvanized Steel													
	Motor	Diameter	inch	9 x 9	9 x 9	10 x 10	12 x 12	12 x 12	12 x 12	12 x 12	15 x 15	15 x 15	15 x 15	15 x 15	18 x 18	18 x 18
		Number of Fan Per Unit	1	1	1	1	1	1	1	1	1	1	1	1	1	
		Motor Type	PSC Motor						TEFC Motor							
		Rate Output	HP	3/4	3/4	3/4	1	1.5	2	2	.	5	5	7.5	11	11
Coil	Tube	Material	Inner Groove Copper Tube													
		Diameter	inch	3/8												
	Fin	Material	Louver fin Aluminum													
		Row	3	3	3	3	3	3	3	3	4	4	4	4	4	
		Fin per inch	14	14	14	14	14	14	14	14	14	14	14	14	14	
Number of Coil Per Unit	1	1	1	1	1	1	1	1	1	1	1	1	1			
Surface Area	ft <sup>2</sup>	3.34	3.34	4.73	4.73	6.67	9.46	9.46	15.6	18.51	18.51	27	27	31.8		

Notes:

- The capacities are gross capacities, which include the effect of evaporator fan motor heat  
 Evaporator Air Inlet Temperature      Condenser Air Inlet temperature  
 27°C DB ( 80°F DB)                      \*35° DB ( 95°F DB)  
 19°C WB ( 66°F DB)                      \*\*46°C WB ( 115°FWB)
- Specification are subjected to change without prior notice.
- The outer dimension will be final upon the confirmation or the order.
- Westair has the right to change compressor model / brand to enhance performance and / or delivery with prior notice.

## PERFORMANCE DATA (50HZ MODEL)

MODEL	AIR	ON COIL		95			115			126		
	FLOW RATE	DB	WB	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI
WRPH-042	850	73	62	36689	24655	2.84	33706	23122	3.74	31904	22205	4.31
		77	64	38107	26217	2.86	35042	24704	3.75	33186	23794	4.34
		80	67	40140	26211	2.89	36909	24655	3.79	34977	23749	4.36
	940	73	62	37626	25736	2.85	34525	24167	0.75	32645	23210	4.32
		77	64	39083	27495	2.87	35871	25898	3.77	33859	24920	4.35
		80	67	41132	27393	2.91	37787	25846	3.81	35777	24900	4.39
	1200	73	62	39743	28654	2.88	36329	26992	3.78	34306	26003	4.35
		77	64	41115	30795	2.19	37610	29110	3.80	85519	28131	4.38
		80	67	43333	30679	2.94	39685	29049	3.85	37525	28106	4.41
WRPH-050	1250	73	62	47148	33145	3.64	43202	31191	4.66	41219	30213	5.32
		77	64	48932	35475	3.68	44872	33564	4.69	42823	32588	5.36
		80	67	51415	35373	3.74	47218	33477	4.76	45091	32510	5.41
	1400	73	62	48309	34879	3.67	44202	32886	4.68	42143	31902	5.34
		77	64	50053	37489	3.71	45878	35004	4.72	43756	33998	5.38
		80	67	52603	37348	3.79	48250	35367	4.78	46223	33973	5.45
	1500	73	62	48984	36003	3.68	44705	33975	4.69	42795	32524	5.35
		77	64	50802	38203	3.73	46463	36194	4.74	44316	35186	5.40
		80	67	53277	38625	3.81	49042	36143	4.82	46772	35172	5.46
WRPH-062	1620	73	62	55188	39293	3.97	50461	36987	5.15	47308	35433	5.85
		77	64	57284	42218	3.99	52444	39857	5.18	49370	38409	5.88
		80	67	60410	42166	4.03	55373	39868	5.22	52200	38419	5.92
	1800	73	62	56256	41123	3.98	51383	38742	5.16	48281	37224	5.86
		77	64	58509	44349	4.00	53509	42004	5.19	50339	40472	5.90
		80	67	61525	44236	4.04	56333	41911	5.23	43056	40428	5.93
	2000	73	62	57441	43195	3.99	52392	40708	5.18	49197	39160	5.87
		77	64	59490	46640	4.02	54694	3937	5.21	51348	41797	5.91
		80	67	62771	46576	4.06	57416	44152	5.25	54046	42696	5.94
WRPH-075	1850	73	62	69360	48066	5.58	63251	44971	7.19	59256	43019	8.16
		77	64	71892	51330	5.62	65568	48258	7.23	61581	46308	8.20
		80	67	75708	51254	5.69	69159	48203	7.30	65034	46304	8.27
	2100	73	62	71281	51348	5.61	64824	47515	7.22	60762	45571	8.19
		77	64	73865	54364	5.66	67269	51191	7.28	53125	49237	8.23
		80	67	77736	54259	5.73	70907	51123	7.33	66621	49232	8.30
	2400	73	62	73147	53763	5.65	66423	50481	7.26	62209	48460	8.21
		77	64	75771	57889	5.69	68912	54647	7.30	64989	51276	8.27
		80	67	79701	57703	5.77	72602	54524	7.37	68151	52544	8.34
WRPH-105	2700	73	62	99463	69425	7.32	91479	65407	9.50	86483	62959	10.83
		77	64	103154	74167	7.39	94944	70258	9.56	89825	67817	10.91
		80	67	108400	73820	7.49	99874	70011	9.67	94344	67550	11.02
	3000	73	62	101620	72556	7.36	93346	68515	9.52	88185	66050	10.88
		77	64	105333	77841	7.43	96834	73787	9.61	91543	71311	10.94
		80	67	110328	77339	7.53	101552	73422	9.69	96087	71008	11.04
	3500	73	62	104583	77600	7.41	95907	73464	9.58	90537	70981	10.92
		77	64	108241	83670	7.49	99916	77434	9.67	94305	74878	11.02
		80	67	113409	83128	7.61	104209	79094	9.77	98510	75640	11.10



## PERFORMANCE DATA (50HZ MODEL)

MODEL	AIR	ON COIL		95			115			126		
	FLOW RATE	DB	WB	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI
WRPH-120	3200	73	62	107020	77054	7.87	97676	72670	10.17	91784	69847	11.56
		77	64	110990	82909	7.90	101440	78514	10.22	95406	75752	11.59
		80	67	117202	82861	7.99	107224	78487	10.28	100976	75732	11.67
	3500	73	62	108954	80408	7.88	99348	75901	10.18	93296	73050	11.57
		77	64	112986	86660	7.93	103126	82191	10.24	97240	77986	11.63
		80	67	119268	86588	8.01	108968	82052	10.32	102550	79373	11.69
	4000	73	62	111302	85479	7.90	101624	80994	10.21	95748	76502	11.60
		77	64	115738	92706	7.94	105924	86328	10.27	99474	83359	11.65
		80	67	122102	92553	8.02	111378	87988	10.35	105172	83506	11.72
WRPH-150	4200	73	62	150308	106868	11.37	136626	100010	14.59	127638	95600	16.50
		77	64	155778	114496	11.47	141816	107638	14.67	133018	103488	16.61
		80	67	163962	114117	11.64	149502	107491	14.83	140388	103325	16.77
	4500	73	62	152074	109949	11.40	138158	103065	14.61	129332	98680	16.53
		77	64	157980	118327	11.52	143714	111376	14.73	135152	105418	16.65
		80	67	165744	117843	11.67	151026	111004	14.85	141764	106890	16.80
	5000	73	62	155326	115407	11.47	140960	108398	14.65	132400	102080	16.59
		77	64	161128	124551	11.58	146598	115226	14.77	137318	110815	16.70
		80	67	169114	123960	11.74	154794	115166	14.92	145092	110850	16.89
WRPH-210	5200	73	62	198198	137549	15.07	181620	129313	19.53	171298	124191	22.25
		77	64	205310	146796	15.23	188302	138590	19.69	177256	133473	22.46
		80	67	215594	146172	15.46	197866	138110	19.92	186794	133184	22.67
	5800	73	62	202748	143951	15.17	185590	135666	19.63	174906	130654	22.35
		77	64	209406	154122	15.32	191772	145746	19.74	180860	140709	22.52
		80	67	220220	153493	15.57	201858	145337	20.01	190444	140357	22.80
	6500	73	62	207292	151323	15.27	189412	142816	19.68	178478	137785	22.48
		77	64	213940	162594	15.42	195726	154232	19.85	185110	149198	22.62
		80	67	224860	161899	15.68	205834	153352	20.09	194058	148454	22.80
WRPH-250	6700	73	62	224042	159069	16.78	202076	147717	21.30	188742	140990	24.02
		77	64	232628	170981	16.94	210150	159714	21.40	196566	152928	24.17
		80	67	246120	171299	17.20	222726	160139	21.66	208818	153481	24.36
	7500	73	62	229324	167635	16.88	206708	156064	21.35	192716	148776	24.12
		77	64	238710	108942	17.06	215480	169367	21.53	201818	160243	24.25
		80	67	251988	181179	17.330	227976	169842	21.76	213400	162824	24.43
	8300	73	62	234475	175857	16.98	211038	164187	21.42	197166	154578	24.188
		77	64	243458	190384	17.15	220128	175882	21.61	205460	168682	24.28
		80	67	256856	190587	17.44	232768	176438	21.86	217728	169610	24.55
WRPH-310	7500	73	62	276110	191896	23.89	247012	177354	29.73	228764	168141	33.21
		77	64	287376	206048	24.19	257756	191254	30.01	239100	182194	33.53
		80	67	303234	205895	24.60	272472	191547	30.35	253348	182917	33.92
	8300	73	62	282972	201193	24.07	252902	186388	29.89	234146	177014	33.35
		77	64	294238	216559	24.37	262720	201506	30.13	245002	189631	33.67
		80	67	310280	216575	24.80	278726	202076	30.53	258792	193058	34.05
	9200	73	62	289432	211574	24.25	258718	196366	30.04	239574	187107	33.55
		77	64	300040	228030	24.52	269602	209211	30.26	249712	200019	33.80
		80	67	317302	228140	24.99	284646	213199	30.71	265138	200709	34.25

## PERFORMANCE DATA (50HZ MODEL)

MODEL	AIR	ON COIL		95			115			126		
	FLOW RATE	DB	WB	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI
WRPH-360	9720	73	62	334018	238154	25.51	364432	223453	32.38	286758	214494	36.72
		77	64	346420	256004	25.68	315998	240790	32.61	297908	232070	36.94
		80	67	366488	256175	26.20	334370	241415	32.99	315454	232489	37.34
	10800	73	62	341938	250298	25.68	310936	234756	32.50	292936	225853	36.86
		77	64	354514	269785	25.93	322962	254171	32.73	304912	242100	37.08
		80	67	374478	269624	26.37	341504	254420	33.14	321934	245635	37.48
	12000	73	62	349002	263147	25.82	317244	247450	32.69	299010	234722	36.98
		77	64	362284	284755	26.10	330192	264813	32.86	311028	255665	37.27
		80	67	381970	284185	26.54	347982	268990	33.29	328434	255850	37.59
WRPH-420	10935	73	62	385504	272551	29.62	351472	254817	38.48	330162	243989	43.88
		77	64	399664	292154	29.88	364906	274774	38.76	343042	263799	44.16
		80	67	421620	292182	30.31	385892	274755	39.19	363194	264042	44.66
	12150	73	62	394170	284984	29.79	358960	267666	38.62	336944	255740	44.03
		77	64	408420	306723	30.05	372138	288779	38.89	351152	274249	44.34
		80	67	430860	306341	30.49	393432	288779	39.35	370012	277879	44.82
	13500	73	62	402288	298899	29.94	365930	281034	38.85	344084	265288	44.18
		77	64	418582	318540	30.26	380898	300147	39.04	357610	288591	44.57
		80	67	439448	322554	30.67	401922	300235	39.54	377698	288938	45.00
WRPH-500	12600	73	62	440820	311659	34.03	397654	289889	43.45	371962	276739	49.13
		77	64	456388	334076	34.38	412562	312309	43.80	386242	298951	49.46
		80	67	481356	333579	34.95	436002	312177	44.31	408422	299373	50.10
	14000	73	62	450646	326718	34.25	406078	304152	43.71	379628	290795	49.32
		77	64	466642	351381	34.61	421398	329111	44.02	395270	311472	49.69
		80	67	491660	351045	25.21	444806	329156	44.60	416606	316203	50.30
	15600	73	62	459416	343183	34.45	413724	320222	43.84	388028	301497	49.51
		77	64	476804	370953	34.85	430926	342155	44.22	403002	328446	49.90
		80	67	501532	370130	35.46	454504	341787	44.84	425316	328769	50.49

## ROOFTOP PACKAGE UNIT (60HZ MODEL) SPECIFICATIONS

MODEL		PACKAGE	042	050	062	075	105	120	150	210	250	310	360	420	500		
Nominal Cooling Capacities at 35°C Outdoor temperature*	Cooling	Btu/h	42,648	50,984	65,411	75,323	114,549	126,744	158,836	227,114	266,226	321,244	397,390	412,936	514,666		
		kW	12.81	15.36	19.28	22.01	33.62	37.13	46.54	66.56	78.02	94.14	111.66	117.35	150.82		
		kca/h	11,013	13,206	16,583	18,926	28,906	31,930	40,020	57,233	67,087	80,948	96,018	100,907	129,688		
Nominal Cooling Capacities at 46°C Outdoor temperature*	Cooling	Btu/h	39,122	46,539	59,790	69,235	79,662	115,594	146,324	208,526	242,342	289,946	359,616	374,909	469,884		
		kW	11.78	14.07	17.61	20.25	30.98	33.85	42.88	61.11	71.01	84.96	101.08	106.48	137.69		
		kca/h	10,131	12,097	15,146	17,414	26,638	29,108	36,870	52,545	61,064	73,059	86,920	91,557	118,397		
Power Supply (V/Ph/Hz)		V/Ph/Hz	380 / 3 / 50														
		Ph	3														
Refrigerant Type		R-22															
Refrigerant Charge		kg.	3.50	3.55	4.36	4.82	8.05	8.82	10.00	14.73	19.32	20.00	29.09	29.09	36.82		
Outer Dimension	Height	inch	25	25	25	29	35	39	39	60	60	60	75	75	85		
	Width	inch	40	40	40	40	40	55	55	75	75	75	80	80	86		
	Depth	inch	58	58	58	65	65	84	81	77	97	97	97	97	105		
Casing	Material	Electro - galvanize Steel															
	Finish	Powder Paint															
Refrigerant Type		R-22															
Flow Control		Thermostatic Expansion Valve															
Number of Circuit			1	1	1	1	1	2	2	2	2	2	2	2	2		
CONDENSER SECTION	Compressor	Model	ZR 40K3-TF5	ZR 48K3-TF5	ZR 61K3-TF5	ZR 72K3-TF5	ZR 108K3-TF5	ZR 61K3-TF5	ZR 72K3-TF5	ZR 108K3-TF5	ZR 125K3-TF5	ZR 160K3-TF5	ZRT 190K3-TW5	ZRT 188K3-TF5	ZRT 250K3-TF5		
		Qty	1	1	1	1	1	2	2	2	2	2	2	2	2		
		Compressor Type	Hermetic Scroll														
		Rated Current	A	10.7	12.6	16.6	17.6	28.2	16.6 x 2	17.6 x 2	28.2 x 2	32.6 x 2	43.2 x 2	53.2 x 2	51.2 x 2	65.2 x 2	
		Vibration Isolator	Rubber														
	Fan	Protection Device	Auto Reset Thermal Overload														
		Number of Fan Per Unit	Qty.	1	1	1	1	1	2	2	2	2	2	2	2	2	
		Fan Type/Drive	Propeller Fan														
		Blade Material	Aluminum														
	Motor	Diameter	inch	24	24	26	26	30	26	26	30	30	30	30	30	30	
		Number of Motor Per Unit		1	1	1	1	1	2	2	2	3	3	4	4	4	
	Coil	Tube	Material	Inner Groove Copper Tube													
			Diameter	inch	3/8												
		Fin	Material	Louver fin Aluminum													
			Row		2	2	3	3	3	3	3	3	3	3	3	3	3
			Fin per inch		13	13	13	13	13	13	13	13	13	13	14	14	14
		Number of Coil Per Unit		1	1	1	1	1	2	2	2	2	2	2	2	2	
		Surface Area	ft <sup>2</sup>	9.57	9.57	9.57	11.55	15.6	19.14	23.1	26.68	40.67	40.67	54.3	71.25	90	
	Fan Nominal Air Flow	CFM	1200	1500	2000	2400	3500	4000	5000	6500	8300	9200	12000	13500	15600		
	EVAPORATOR SECTION	Drain	Condensate Drain	Female Piping Thread Screw													
Size			FTP	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1	1	1	1	1	1	
Qty				1	1	1	1	1	2	2	2	2	2	2	2	2	
Fan		Number of Fan Per Unit	Qty.	1	1	1	1	1	2	2	2	2	2	2	2		
		Fan Type/Drive	Centrifugal / Direct Drive / Belt Drive														
		Blade Material	Galvanized Steel														
Motor		Diameter	inch	9 x 9	9 x 9	10 x 10	12 x 12	12 x 12	12 x 12	12 x 12	15 x 15	15 x 15	15 x 15	15 x 15	18 x 18	18 x 18	
		Number of Motor Per Unit		1	1	1	1	1	1	1	1	1	1	1	1	1	
Coil		Motor Type	PSC Motor						TEFC Motor								
		Rate Output	HP	3/4	3/4	3/4	1	1.5	2	2	3	5	5	7.5	11	11	
	Tube	Material	Inner Groove Copper Tube														
Diameter		inch	3/8														
Fin	Material	Louver fin Aluminum															
	Row		3	3	3	3	3	3	3	3	4	4	4	4	4		
	Fin per inch		14	14	14	14	14	14	14	14	14	14	14	14	14		
Number of Coil Per Unit		1	1	1	1	1	1	1	1	1	1	1	1	1			
Surface Area	ft <sup>2</sup>	3.34	3.34	4.73	4.73	6.67	9.46	9.46	15.6	18.51	18.51	27	27	31.8			

**Notes:**

- The capacities are gross capacities, which include the effect of evaporator fan motor heat  
 Evaporator Air Inlet Temperature      Condenser Air Inlet temperature  
 27°C DB ( 80°F DB)                      \*35° DB ( 95°F DB)  
 19°C WB ( 66°F DB)                      \*\*46°C WB (115°FWB)
- Specification are subjected to change without prior notice.
- The outer dimension will be final upon the confirmation or the order.
- Westair has the right to change compressor / brand to enhance performance and / or delivery with prior notice.

## PERFORMANCE DATA (60HZ MODEL)

MODEL	AIR	ON COIL		95			115			126		
	FLOW RATE	DB	WB	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI
WRPH-042	850	73	62	36160	24335	2.89	33179	22860	3.71	31455	21955	4.28
		77	64	37503	24618	2.90	34535	24450	3.72	32735	23569	4.30
		80	67	39584	25927	2.91	36394	24420	3.74	34501	23529	4.31
	940	73	62	36984	25408	2.90	33995	23898	3.72	32171	23002	4.28
		77	64	38456	25792	2.91	35360	25636	3.73	33476	24738	4.30
		80	67	40575	27144	2.92	37247	25588	3.75	35291	24703	4.32
	1200	73	62	39076	28330	2.91	35786	26732	3.73	33823	25773	4.30
		77	64	40434	28924	2.92	37061	28870	3.74	35177	27508	4.32
		80	67	42648	30408	2.94	39122	28832	3.77	36995	27894	4.34
WRPH-050	1250	73	62	45197	31728	3.63	41259	29788	4.65	38808	28562	5.33
		77	64	46888	32071	3.66	42845	30446	4.67	40309	29294	5.36
		80	67	49230	33476	3.70	45039	31932	4.72	42414	30750	5.40
	1400	73	62	46280	33367	3.65	42181	31340	4.67	39631	30119	5.34
		77	64	47953	34029	3.67	43639	32129	4.69	41287	30436	5.38
		80	67	50337	35688	3.71	45999	33717	4.73	43290	32554	5.41
	1500	73	62	46893	34372	3.66	42723	32384	4.68	40092	31151	5.36
		77	64	48458	35124	3.68	44446	34312	4.71	41722	33085	5.38
		80	67	50984	36861	3.73	46539	34904	4.74	43785	33714	5.42
WRPH-062	1620	73	62	57648	40584	4.39	52650	38065	5.63	49526	36500	6.47
		77	64	59870	41292	4.41	54767	40965	5.65	51451	39411	6.50
		80	67	62818	43344	4.44	57698	40907	5.68	54267	39343	6.54
	1800	73	62	58909	42473	4.40	53735	39925	5.63	50406	38258	6.48
		77	64	61145	43333	4.42	55875	43079	5.66	52460	41443	6.51
		80	67	64152	45419	4.45	58690	42961	5.70	55164	41373	6.56
	2000	73	62	60112	44482	4.41	54787	41857	5.66	51379	40229	6.50
		77	64	62333	45537	4.43	56901	43083	5.67	53633	42799	6.53
		80	67	65411	47750	4.46	59790	45201	5.71	56182	43597	6.57
WRPH-075	1850	73	62	65942	46357	5.22	60735	43729	6.55	57460	42118	7.43
		77	64	68291	47035	5.27	62957	46965	6.59	59587	45345	7.48
		80	67	71821	49412	5.33	66230	46824	6.66	62723	45223	7.55
	2100	73	62	67632	48897	5.25	62202	46216	6.58	58621	44493	7.46
		77	64	70020	49889	5.30	64439	49811	6.62	60940	48142	7.51
		80	67	73604	52332	5.366	67747	49658	6.69	64105	48014	7.60
	2400	73	62	69072	51804	5.28	63440	49039	6.59	59932	47346	7.49
		77	64	71691	53122	5.33	66259	51814	6.66	62606	50147	7.55
		80	67	75323	55739	5.39	69235	52964	6.72	65268	51235	7.62
WRPH-105	2700	73	62	100641	69945	7.76	92686	65992	9.60	87974	63693	10.83
		77	64	104103	72402	7.82	96166	68655	9.67	91307	66426	10.91
		80	67	109437	74307	7.93	101113	70576	9.77	95808	68215	11.00
	3000	73	62	102541	73009	7.80	94559	69151	9.63	89719	66750	10.87
		77	64	106336	75915	7.87	98091	72121	9.71	93059	69866	10.96
		80	67	111743	77996	7.97	102843	74046	9.80	97021	71653	11.05
	3500	73	62	105587	78134	7.86	97180	74051	9.69	92059	71713	10.93
		77	64	109331	81553	7.93	100656	77718	9.77	95838	73348	11.01
		80	67	114549	83620	8.03	105513	79662	9.88	100031	77323	11.10

## PERFORMANCE DATA (60HZ MODEL)

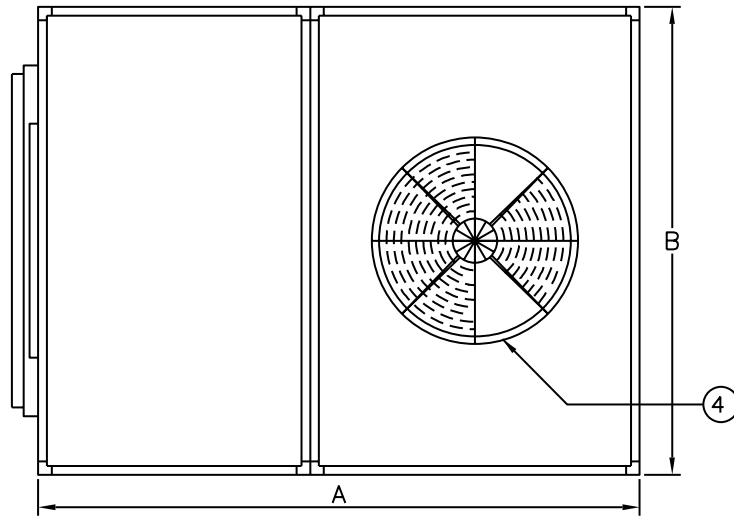
MODEL	AIR	ON COIL		95			115			126		
	FLOW RATE	DB	WB	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI
WRPH-120	3200	73	62	111376	79299	8.68	101760	74590	11.10	95420	71565	12.76
		77	64	115554	82496	8.72	105492	77972	11.14	99052	75134	12.82
		80	67	121500	84807	8.78	111264	80221	11.20	104168	77312	12.87
	3500	73	62	113588	82578	8.70	103476	77813	11.11	96984	74774	12.77
		77	64	117618	86137	8.74	107244	81557	11.14	100640	78682	12.83
		80	67	123818	88529	8.80	113090	83912	11.22	106254	80965	12.90
	4000	73	62	116046	87730	8.73	105844	82981	11.12	99142	79908	12.81
		77	64	120440	92059	8.77	110148	85581	11.19	103248	82624	12.83
		80	67	126744	94551	8.82	115594	89816	11.24	109016	85032	12.92
WRPH-150	4200	73	62	141348	102335	10.62	129902	96647	13.28	122714	93139	15.04
		77	64	146154	106610	10.71	134758	101173	13.37	127492	96212	15.15
		80	67	153842	109535	10.85	141574	103915	13.53	133880	100410	15.31
	4500	73	62	143378	105526	10.66	131644	99786	13.30	124292	96202	15.08
		77	64	148162	110231	10.74	136588	102944	13.40	129020	99493	15.21
		80	67	155864	113313	10.88	143380	107535	13.56	135820	102272	15.36
	5000	73	62	146000	110814	10.67	134370	102927	13.36	126742	99365	15.14
		77	64	151654	114005	10.81	139218	108302	13.44	131434	104670	15.26
		80	67	158836	119285	10.94	146324	111352	13.63	138172	107774	15.41
WRPH-210	5200	73	62	199894	138326	15.91	184026	130474	19.70	174378	125726	22.20
		77	64	207132	143254	16.06	190690	135582	19.83	180750	130969	22.38
		80	67	217380	146948	16.28	200228	139158	20.10	190028	134539	22.63
	5800	73	62	204516	145001	16.00	187954	136830	19.79	178026	132095	22.32
		77	64	211298	150439	16.15	194272	142651	19.92	183988	137955	22.46
		80	67	222292	154492	16.38	204428	146574	20.18	193628	141735	22.72
	6500	73	62	209204	152300	16.10	191904	144119	19.86	181484	139198	22.40
		77	64	215942	158564	16.25	198236	150754	20.04	187480	145847	22.58
		80	67	227114	162840	16.49	208526	154726	20.27	197326	149967	22.82
WRPH-250	6700	73	62	231716	163128	18.73	211652	152812	23.10	199396	146356	25.99
		77	64	240510	169838	18.89	219742	159648	23.24	207156	153519	26.13
		80	67	25436	175258	19.19	232610	164920	23.51	219502	158699	26.36
	7500	73	62	237776	171912	18.86	216726	161027	23.18	203838	154509	26.03
		77	64	246692	179468	19.03	225040	174180	23.32	211818	162726	26.22
		80	67	260522	185231	19.310	237912	174389	23.63	224352	168039	26.47
	8300	73	62	242680	180068	18.95	220434	168852	23.25	207792	162493	26.15
		77	64	251840	188832	19.14	229990	175572	23.47	216728	169022	26.30
		80	67	266226	194877	19.44	242342	183695	23.74	228890	174643	26.55
WRPH-310	7500	73	62	280154	194146	24.83	252346	179922	30.44	234942	171272	34.16
		77	64	291332	197610	25.11	263024	184156	30.75	245274	175922	34.53
		80	67	307568	207915	25.54	277870	194231	31.15	259462	185515	35.00
	8300	73	62	287030	203504	25.00	263732	181975	30.78	240400	180300	34.40
		77	64	298282	207708	25.30	268960	194189	30.93	250540	185650	34.68
		80	67	314292	218432	25.73	284096	204265	31.36	265100	195908	35.15
	9200	73	62	293628	213967	25.18	268648	190740	30.92	245452	189979	34.55
		77	64	304230	218497	25.45	275508	201534	31.07	255956	192824	34.86
		80	67	321244	229689	25.92	289946	215719	31.56	271774	203558	35.38

### PERFORMANCE DATA (60HZ MODEL)

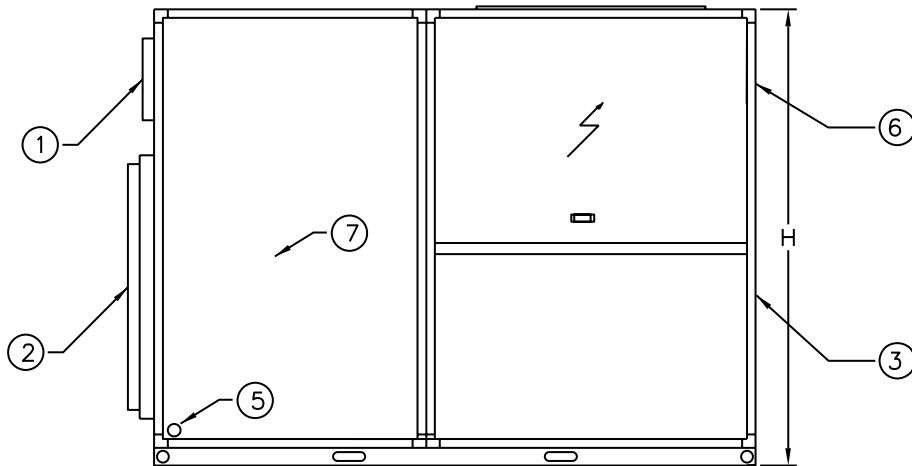
MODEL	AIR	ON COIL		95			115			126		
	FLOW RATE	DB	WB	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI	T.CAP	S.CAP	PI
WRPH-360	9720	73	62	346320	244848	29.14	313046	227897	35.68	291716	217036	39.91
		77	64	360518	257561	29.47	326518	238492	35.93	304650	228133	40.24
		80	67	379938	262537	29.94	344550	246008	36.43	321836	235583	40.69
	10800	73	62	354838	256902	29.34	320368	239635	35.83	298440	228605	40.08
		77	64	368000	268077	29.64	332782	248868	36.14	311692	237942	40.42
		80	67	389264	276766	30.16	352258	259614	36.61	328856	248943	40.95
	12000	73	62	362954	270037	29.54	327166	252244	35.97	304614	241254	40.25
		77	64	376232	282832	29.85	340588	261983	36.32	317188	251060	40.57
		80	67	397390	291286	30.36	359616	274387	36.78	336250	259585	41.13
WRPH-420	10935	73	62	360128	259652	28.28	326502	242590	34.82	305504	231877	39.19
		77	64	373814	265631	28.49	339590	254957	34.99	318438	241547	39.46
		80	67	395468	279991	28.85	360194	263301	35.41	337730	252959	39.78
	12150	73	62	367738	272126	28.40	333248	254934	34.92	311980	240848	39.38
		77	64	382344	285572	28.63	347386	262123	35.19	324988	251774	39.57
		80	67	403838	294397	29.00	367128	277181	35.55	344670	262983	39.89
	13500	73	62	375470	286483	28.52	340494	264563	35.01	318378	253428	39.48
		77	64	391096	293979	28.79	354564	276730	35.32	331546	265766	39.68
		80	67	412936	306398	29.16	374904	289050	35.71	350986	277980	40.06
WRPH-500	12600	73	62	452654	317763	37.94	413756	297904	47.19	390194	286012	53.11
		77	64	468614	326604	38.32	428652	307395	47.49	404522	295915	53.50
		80	67	493796	339731	38.91	452016	320027	48.18	426850	308185	54.13
	14000	73	62	462932	332848	38.19	422534	312675	47.39	398142	300199	53.33
		77	64	478974	343021	38.56	437580	323459	47.80	412478	311635	53.73
		80	67	504048	356865	39.16	461194	336671	48.36	435172	324638	54.46
	15600	73	62	472754	349837	38.43	430932	328801	47.58	405718	316460	53.56
		77	64	489340	357951	38.81	448002	336324	48.04	421588	324183	53.99
		80	67	514666	376220	39.42	469884	355702	48.56	444238	337620	54.68

# Outline Dimension Drawings

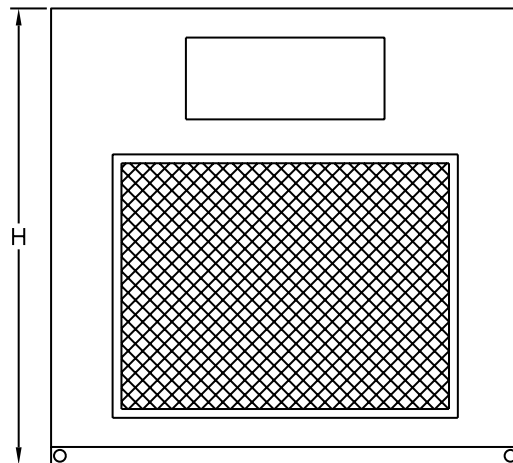
**Top View**



**Side View**



**Front View**



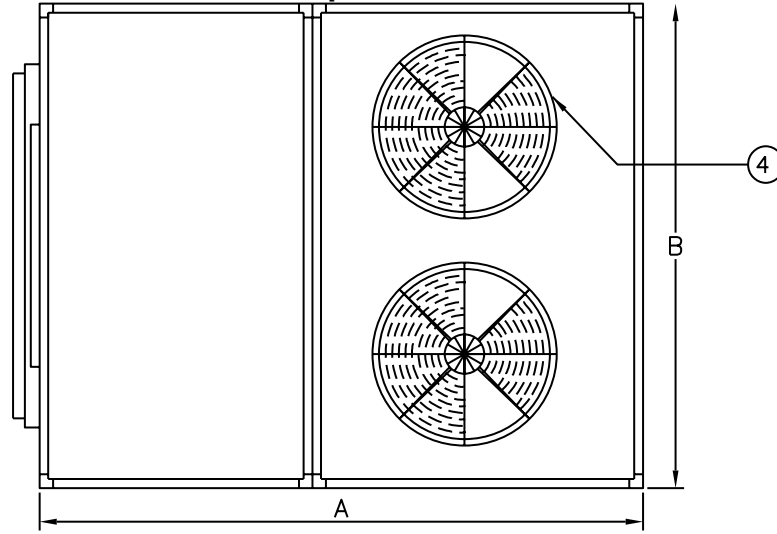
- 1-SUPPLY AIR CONNECTION
- 2-RETURN AIR CONNECTION
- 3-CONDENSER AIR INTAKE
- 4-CONDENSER AIR DISCHARGE
- 5-INDOOR SIDE CONDENSATE DRAIN
- 6-SERVICE PANEL FOR MAGNETIC SWITCH BOX AND COMPRESSOR
- 7-SERVICE PANEL FOR INDOOR FAN MOTOR

MODEL	A	B	H
WRPH 042	58	40	25
WRPH 050	58	40	25
WRPH 062	58	40	25
WRPH 075	65	40	29
WRPH 105	65	40	35

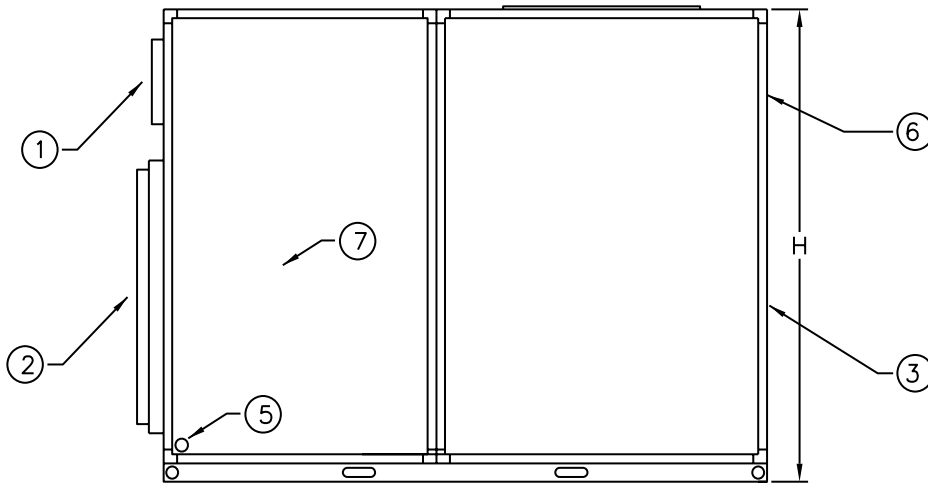
ALL DIMENSIONS ARE IN INCH

# Outline Dimension Drawings

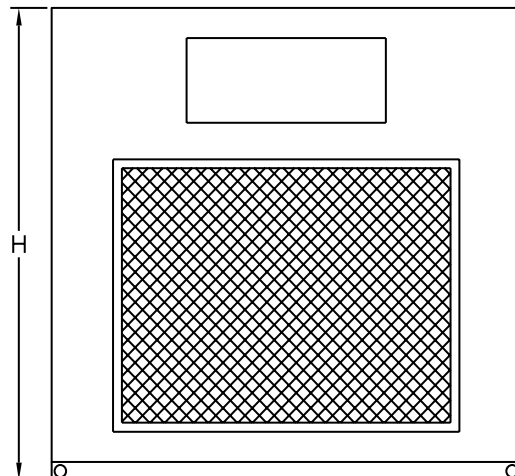
**Top View**



**Side View**



**Front View**



- 1-SUPPLY AIR CONNECTION
- 2-RETURN AIR CONNECTION
- 3-CONDENSER AIR INTAKE
- 4-CONDENSER AIR DISCHARGE
- 5-INDOOR SIDE CONDENSATE DRAIN
- 6-SERVICE PANEL FOR MAGNETIC SWITCH BOX AND COMPRESSOR
- 7-SERVICE PANEL FOR INDOOR FAN MOTOR

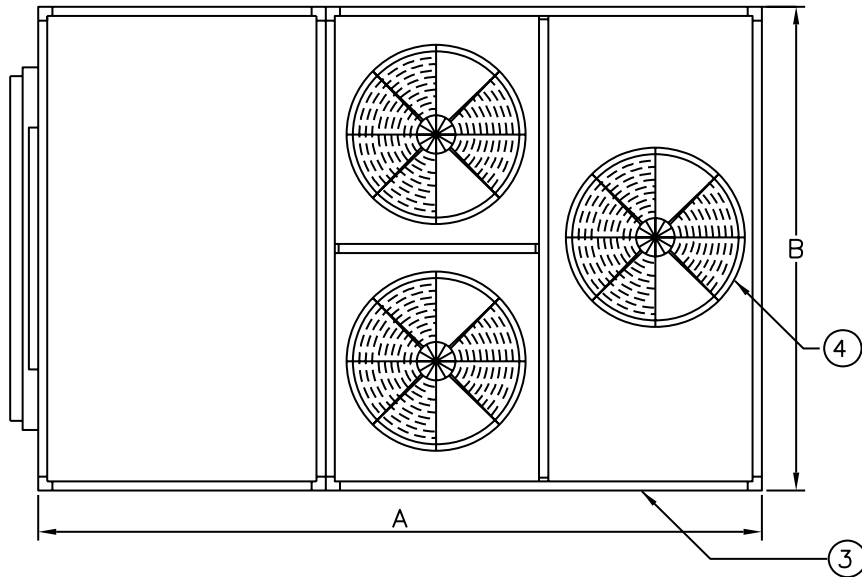
MODEL	A	B	H
WRPH 120	84	55	39
WRPH 150	84	55	39
WRPH 210	77	75	60

ALL DIMENSIONS ARE IN INCH

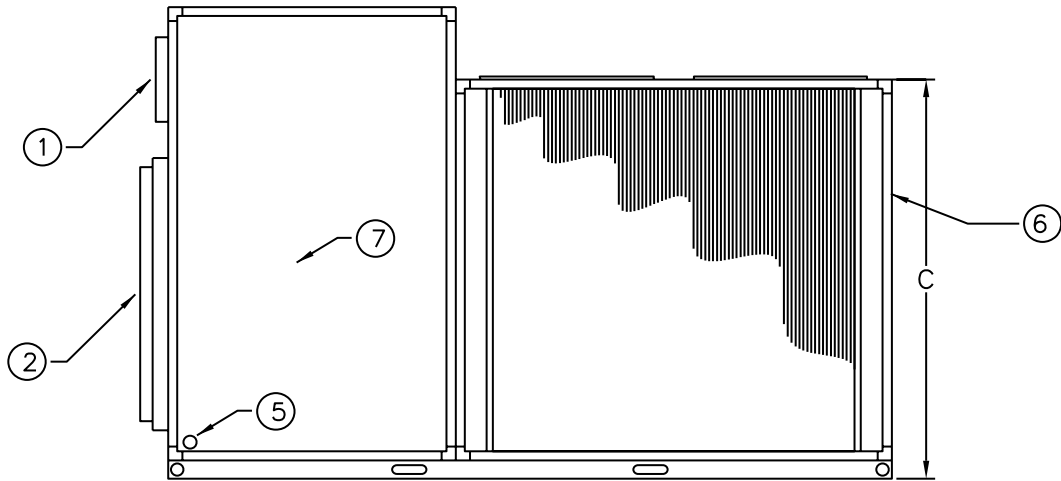


# Outline Dimension Drawings

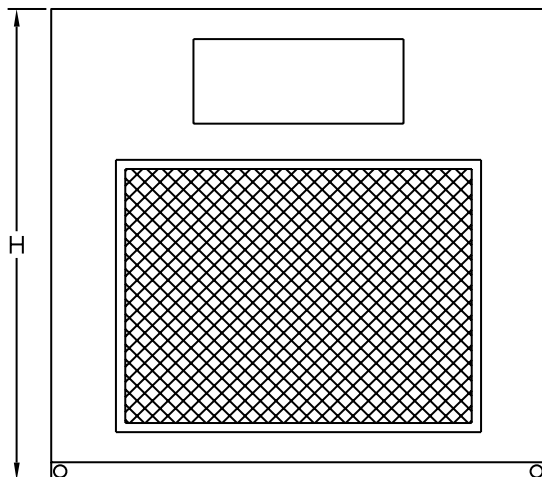
**Top View**



**Side View**



**Front View**



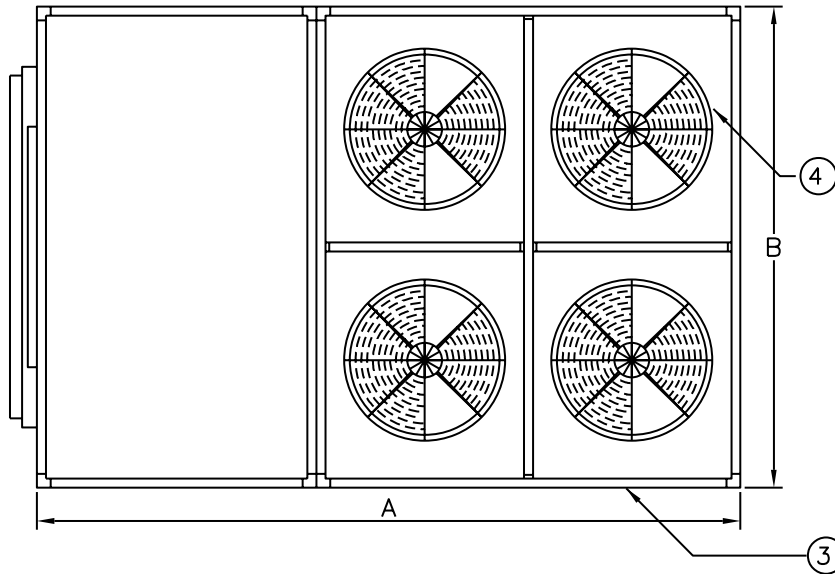
- 1-SUPPLY AIR CONNECTION
- 2-RETURN AIR CONNECTION
- 3-CONDENSER AIR INTAKE
- 4-CONDENSER AIR DISCHARGE
- 5-INDOOR SIDE CONDENSATE DRAIN
- 6-SERVICE PANEL FOR MAGNEKC SWITH BOX AND COMPRFSSOR
- 7-SERVICE PANEL FOR INDOOR FAN MOTOR

MODEL	A	B	H
WRPH 250	97	75	60
WRPH 310	97	75	60

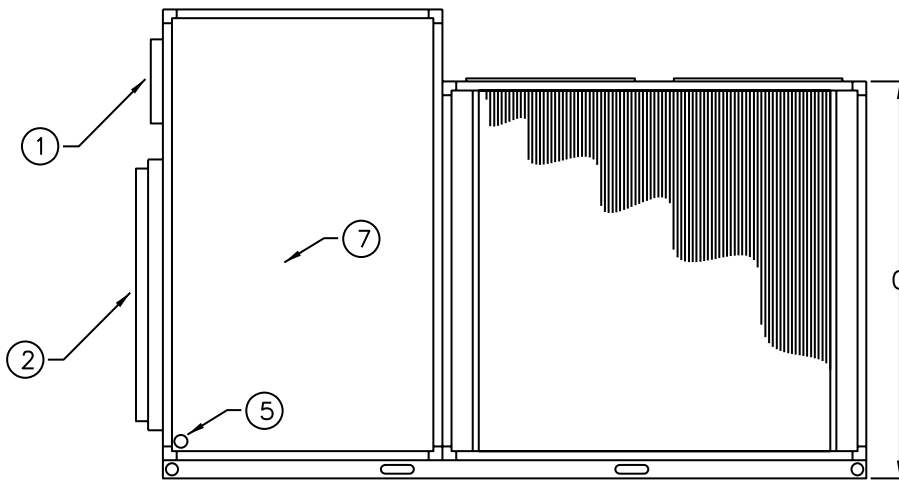
ALL DIMENSIONS ARE IN INCH

# Outline Dimension Drawings

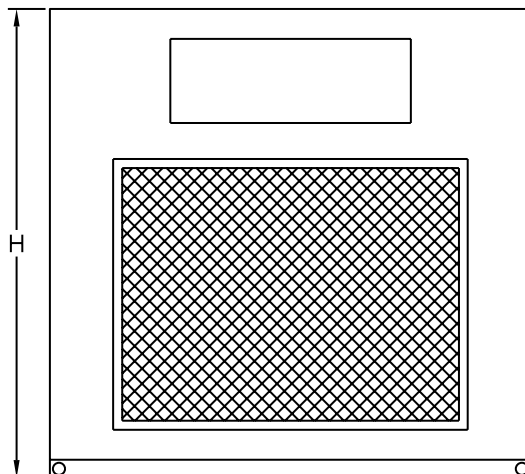
**Top View**



**Side View**



**Front View**



- 1-SUPPLY AIR CONNECTION
- 2-RETURN AIR CONNECTION
- 3-CONDENSER AIR INTAKE
- 4-CONDENSER AIR DISCHARGE
- 5-INDOOR SIDE CONDENSATE DRAIN
- 6-SERVICE PANEL FOR MAGNEKC SWITH BOX AND COMPRESSOR
- 7-SERVICE PANEL FOR INDOOR FAN MOTOR

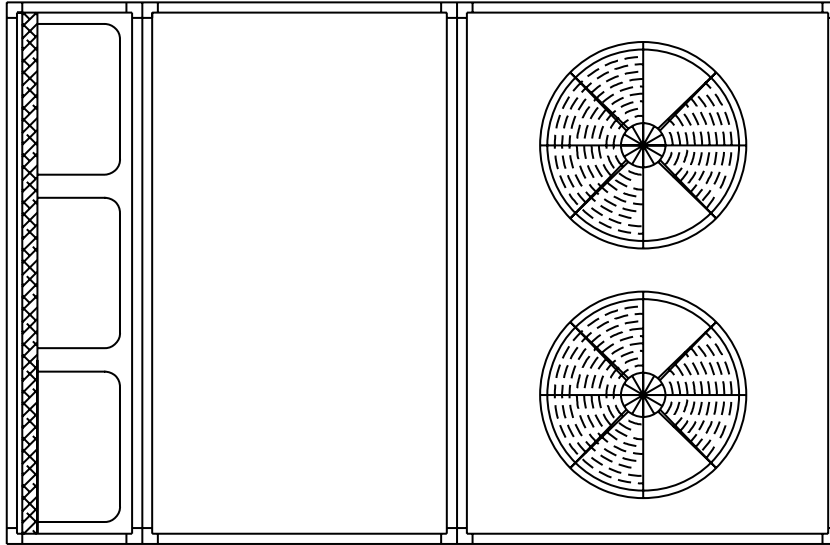
MODEL	A	B	H
WRPH 360	97	80	75
WRPH 420	97	80	75
WRPH 500	105	86	85

ALL DIMENSIONS ARE IN INCH

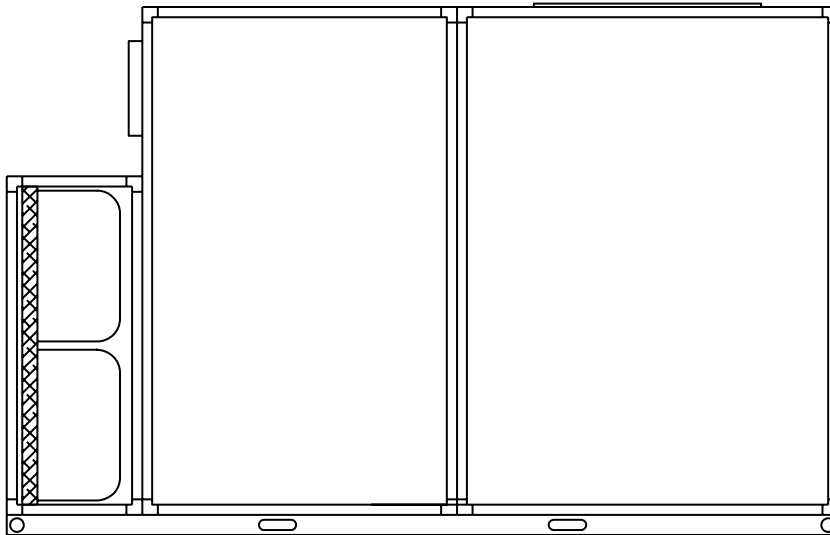
# Outline Dimension Drawings

## Optional Construction (with Bag Filter)

Top View



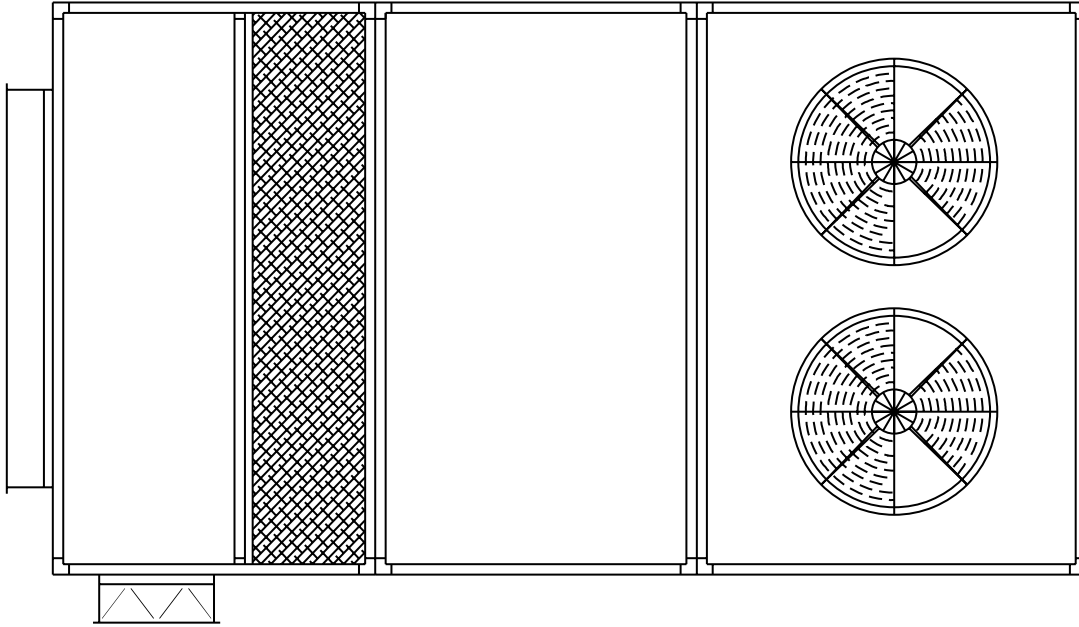
Side View



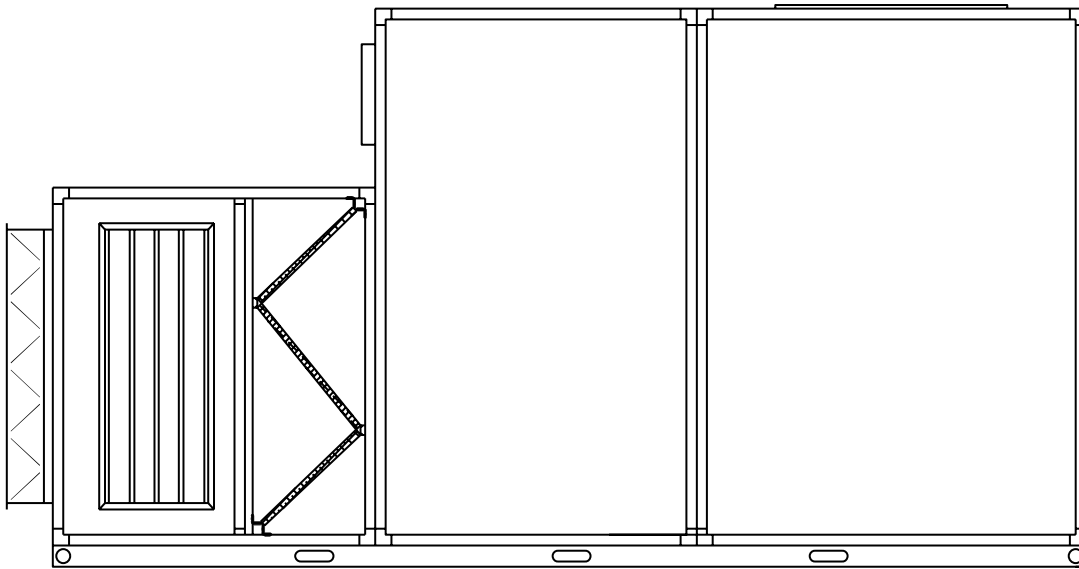
# Outline Dimension Drawings

Optional Construction  
(with Mixing Box and Vee Filter)

Top View



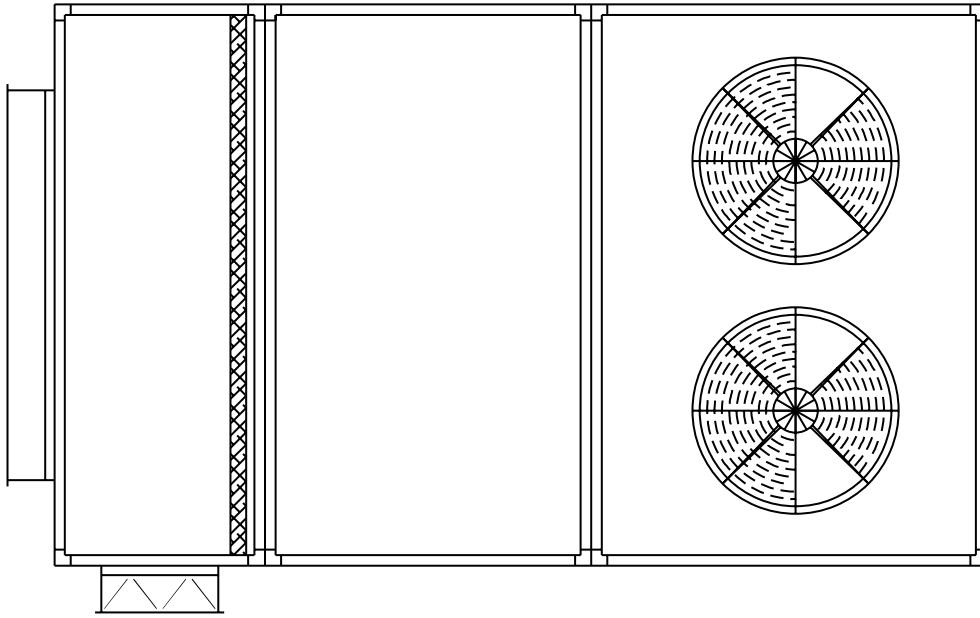
Side View



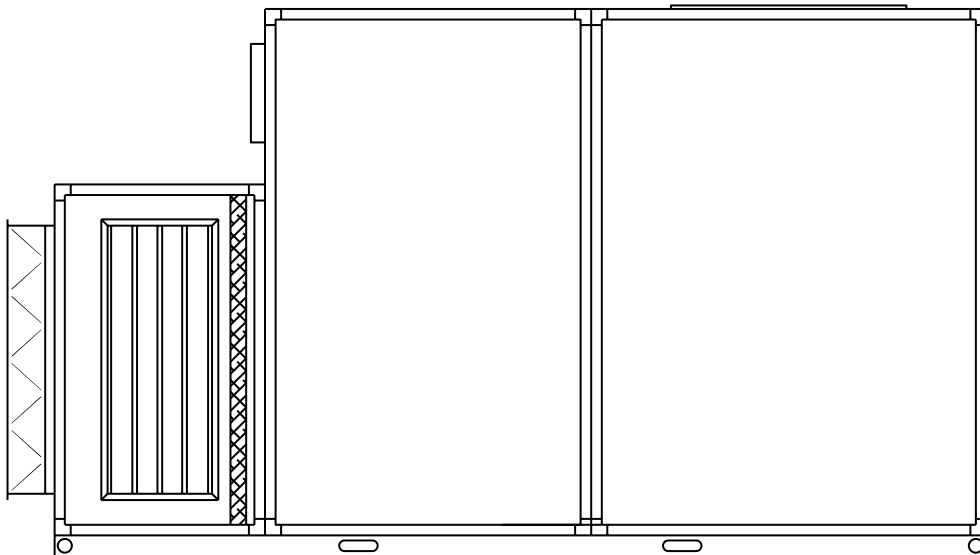
# Outline Dimension Drawings

## Optional Construction (with Mixing Box)

Top View



Side View



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**All models, sizes, dimensions, and specifications are subject to change without prior notice.**

**CATALOG #WESPACK002**