

HES-20, 30 & 40

Vogt Tube-Ice Machines



Without Casing



Stainless Steel Casing



Models HES-20, HES-30 & HES-40

New Features:

- Increased Efficiency
- Scroll Compressor
- Self-Diagnostic Indicator Light
- Electronic Temperature Controls
- Integral Drip Pan

Standard Construction:

All surfaces in contact with water or ice are of stainless steel or other rust-resistant material. Exterior finish is available in heavy-duty stainless steel panels (as shown on left).

Units are factory tested and adjusted for cylinder ice only and can be manually converted to crushed ice in the field if required. Unit can be set for crushed ice at factory with no extra charge if specified on order.

Electrical Requirements:

Standard is 208/230V, 3ph, 60Hz. Other configurations are available on request including 50Hz.

Dual Ice Selector Switch (Optional):

The selector switch has three settings:

1. Cylinder (Tube-Ice) only
2. Crushed ice only
3. Both cylinder and crushed ice for split bins

Tube-Ice Evaporator and Refrigerant Receiver:

Manufactured in accordance with the A.S.M.E. Code with a 25-year warranty on domestic installations (see Tube-Ice warranty for details). R22 is the standard refrigerant.

Remote Control Panel (Optional):

The control panel switch plate can be removed from the machine and furnished in a remote enclosure if specified at time of order. The switch box contains ice/clean/off selector switch, fault indicator and manual harvest/start button.

Standard Ice Size:

- Tube-Ice approximately 7/8" Diameter X 3/4" Long (S models)
- Tube-Ice approximately 1 1/8" Diameter X 1" long (M models)
- Crushed Ice 3/16" to 1/4" Thick on all models (approximately 32 lbs./cubic foot)

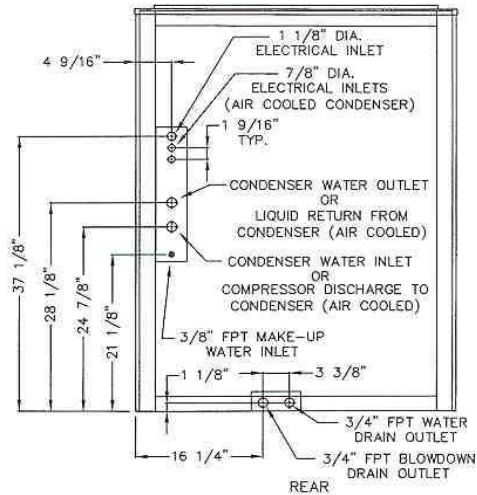
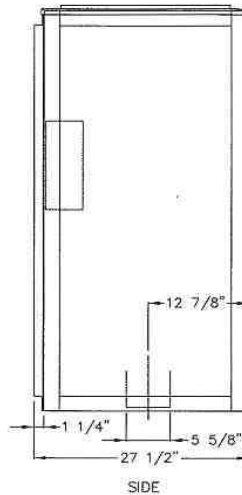
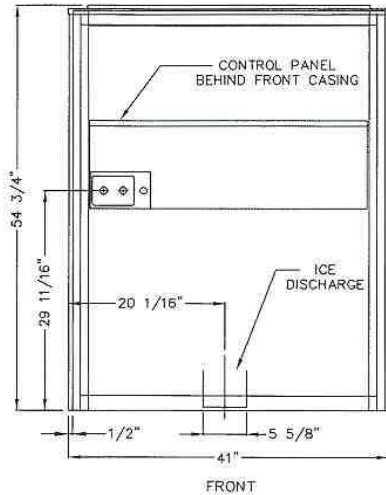
1000 West Ormsby Ave. - Suite 19
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Vogt Tube-Ice

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VOGT TUBE-ICE® MACHINES

Models HES-20, HES-30 & HES-40



NOTE: MACHINE FOOTPRINT WITHOUT CASINGS: 40" X 26" X 54"

Ice Machine Electrical Information

Model	Water Cooled			Air Cooled		
	F.L.A.	Min. Ampacity	Max. Fuse	F.L.A.	Min. Ampacity	Max. Fuse
HES-20	18.0	20.9	35	20.5	23.1	35
HES-30	21.6	25.4	45	29.6	33.4	50
HES-40	27.3	32.5	55	35.3	40.5	65

Shipping Weight (Lbs)
1050
1150
1200

Line Size Connections

Ice Making Water		3/8" FPT
Drain Connections	Overflow	3/4" FPT
	Drip Pan	3/4" FPT
* Condenser Water Inlet and Outlet	HES-20 & HES-30	3/4" FPT
	HES-40	1" FPT
** Comp. Discharge & Condenser Return		1 1/8" OD

Motor Information

Model	Water Pump			Cutter Drive			Condenser Fan			Compressor		
	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase
HES-20	1/2	3.8	1	1/2	4.1	1	1/3	2.5	1	3	11.4	3
HES-30	1/2	3.8	1	1/2	4.1	1	2@1/2	8.0	1	4	15.0	3
HES-40	1/2	3.8	1	1/2	4.1	1	2@1/2	8.0	1	6	20.7	3

Machine Capacity (lbs/24 hrs)

Model	Make-Up Temperature (°F)						Energy Usage (KWH/100 lbs)		Water Usage (Gal/100 lbs)	
	40	50	60	70	80	90	Water Cooled	Air Cooled	Ice Making	Condenser
HES-20S	2360	2230	2090	1950	1810	1670	3.56	4.04	14.5	165
HES-20M	2010	1890	1780	1660	1540	1420	4.15	4.71	14.5	190
HES-30S	3280	3160	3010	2830	2610	2370	2.73	3.69	14.5	290
HES-30M	2790	2690	2560	2400	2220	2010	3.23	4.37	14.5	340
HES-40S	4450	4190	3950	3650	3520	3330	2.69	3.39	14.5	325
HES-40M	3780	3560	3360	3170	2990	2830	3.18	4.02	14.5	375

NOTE: ENERGY USAGE BASED ON MAKEUP WATER TEMPERATURE OF 70°F, AMBIENT (AIR) TEMPERATURE OF 80°F
 ELECTRICAL DATA BASED ON 208/230V, 3PH, 60HZ
 MAKE-UP WATER USAGE INCLUDES 20% BLOWDOWN
 * WATER COOLED MACHINE / ** AIR COOLED MACHINE

CAPACITY BASED ON AMBIENT (AIR) TEMPERATURE OF 90°F
 CAPACITY REDUCED: 17% ON 50HZ
 Vogt reserves the right to change designs and specifications without notice



Vogt Tube-Ice, LLC
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 Louisville, KY 40210
 Sales: 800-853-8648
 Phone: 502-635-3000
 Sales Fax: 502-634-0479
 E-mail: info@tubeice.com
 Website: www.tubeice.com

Operating Conditions:

The ice machine shall not be subjected to an atmospheric temperature lower than 50°F nor higher than 90°F without effect on performance. Water for condensing and for ice making purposes shall be non-corrosive.

The water shall be at a constant pressure of not less than 30 lbs. at the ice machine location. The condition of the water to make satisfactory ice shall be the responsibility of the purchaser.

Air-Cooled Condensers:

The air-cooled condensers are available as remote units only, with 50/50 split coil and low ambient controls. Vogt requires that the air-cooled condensers be purchased from the Vogt factory for warranty consideration and in order to assure proper sizing and operation. The ice capacity with an air-cooled unit will be the same as a water-cooled unit, as long as the ambient temperature does not exceed 95°F. For each 5°F increase in ambient temperature, the ice capacity will be decreased by approximately 3%.

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Vogt[®]
Tube-Ice[®]

Models: HES-20S, HES-20M
 HES-30S, HES-30M
 HES-40S, HES-40M
Tube-Ice Machines



Standard Construction:

All surfaces in contact with water or ice are of stainless steel or other rust resistant material. External finish is available in heavy-duty ABS panels or stainless steel panels.

Units are factory tested and adjusted for cylinder ice and can be manually switched to crushed ice in the field if required. Unit can be set for crushed ice at factory at no extra charge if specified on order.

Electrical Requirements:

Standard is 208/230V, 3ph, 60hz. Other configurations are available on request including 50hz.

Dual Ice Selector Switch (Optional):

The selector switch has three settings:

1. Cylinder (Tube-Ice) only
2. Crushed Ice only
3. Both cylinder and crushed ice for split bins

Tube-Ice Evaporator and Refrigerant Receiver:

Manufactured in accordance with the A.S.M.E. Code with a 25-year warranty on domestic installations (see Tube-Ice warranty for details).

Remote Control Panel (Optional):

The control panel switch plate can be removed from the machine and furnished in a remote enclosure if specified at time of order.

The switch plate contains Ice / Clean / Off selector switch, Fault Indicator and Manual Harvest / Start button.

Standard Ice Size:

Tube-Ice

S Model's approximately 7/8" Diameter X 3/4" Long
 (Approximately 58 cylinders / lb)

M Model's approximately 1 1/8" Diameter X 1" Long
 (Approximately 30 cylinders / lb)

Crushed Ice approximately 1/4" Thick
 (Approximately 32 lbs / cubic foot)



Operating Conditions:

The ice machine shall not be subjected to an atmospheric temperature lower than 50 °F nor higher than 90°F, without effect on performance. Water for condensing and for ice making purposes shall be non-corrosive.

The water shall be at a constant pressure of not less than 30 lbs. at the ice machine location. The condition of the water to make satisfactory ice shall be the responsibility of the purchaser.

Air-Cooled Condensers:

The air-cooled condensers are available as remote units only, with 50/50 split coil and low ambient controls. Vogt requires that the air-cooled condensers be purchased from the Vogt factory in order to assure proper sizing and operation. The ice capacity with an air-cooled unit will be the same as a water-cooled unit, as long as the ambient temperature does not exceed 95°F. For each 5°F increase in ambient temperature, the ice capacity will be decreased by approximately 3%.

UL, NSF & USDA Approved

Vogt Tube Ice LLC
 1000 West Ormsby
 Louisville, KY 40210

Revision Date: 5/1/00 (Printed in U.S.A.)

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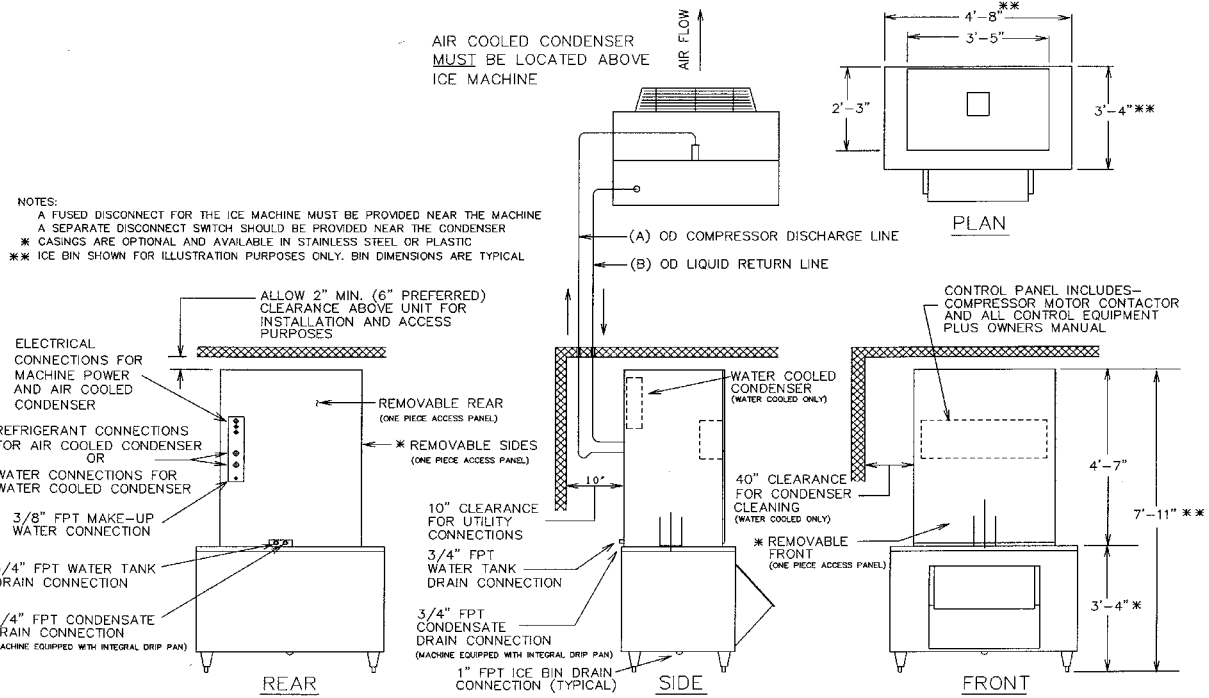
HES-40S

Tube-Ice Machine

Models: 04KA-PFB4-26 = 7/8" O.D. Cylinder Ice, 208/230V,3ph,60hz
 04KA-PFK4-26 = 7/8" Crushed Ice, 208/230V,3ph,60hz
 04KA-PFD4-26 = 7/8" Dual Ice, 208/230V,3ph,60hz

04KA-PFB4-46 = 7/8" O.D. Cylinder Ice 460V,3ph,60hz
 04KA-PFK4-46 = 7/8" Crushed Ice 460V,3ph,60hz
 04KA-PFD4-46 = 7/8" Dual Ice 460V,3ph,60hz

Note: Condenser type should be entered in last two positions: WC = Water Cooled, AC = Air Cooled



	Ice Machine Electrical Information							
	Water Cooled Machine				Air Cooled Machine			
	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine
Voltage								
208/230, 3p, 60hz	27.3	32.5	55	40	35.3	40.5	65	50
460, 3p, 60hz	13.3	15.8	30	20	17.3	19.8	30	20

Note: A fused disconnect must be provided near the machine / Air cooled machines must have a disconnect near the remote condenser

Line Size Connections		
Ice Making Water		3/8" FPT
Drain Connections	Overflow	3/4" FPT
	Drip Pan	3/4" FPT
(A) * Condenser Water Inlet & Outlet		1" FPT
(B) ** Comp. Discharge & Condenser Return		1 1/8" OD

Note: * Water Cooled Only / ** Air Cooled Only

	Motor Information												
	Water Pump			Cutter Drive			Condenser Fan			Compressor			
	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	L.R.A.	R.L.A.	Phase
208/230V, 60hz	1/2	3.8	1	1/2	4.1	1	2 @ 1/2	4 ea. (8 total)	1	6	156	20.7	3
460V, 60hz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	70	10	3

Makeup Water Temp (°F)	Ice Capacity (lbs/day)	Efficiency (KWH / 100 lbs) Condenser Type		Ice Making Water Usage/100 lbs of Ice (gal)		Makeup Water Flow Rate (gpm/gph)		Condenser Water				Total Heat Rejection (BTU/hr)
		Water	Air	Usage	Flow Rate	Water Temp In (°F)	Water Temp Out (°F)	Water Flow Rate (gpm)	Water Press. Drop (psig)			
		50	4065	2.39	3.00	14.4	0.41	24.5	50	66.6	5.9	
60	3835	2.54	3.19	14.4	0.38	23.1	60	73.2	7.4	2.0	49,000	
70	3615	2.69	3.39	14.4	0.36	21.8	70	80.3	9.5	3.0	49,000	
80	3415	2.86	3.60	14.4	0.34	20.6	80	86.7	14.7	7.0	49,000	
90	3230	3.02	3.82	14.4	0.32	19.4	90	93.9	25.1	18.0	49,000	

Note: Air Cooled KWH / 100 lbs ratings based on fans operating @ 90% of FLA (75% of freeze cycle)
 Capacities and Energy values based on 90 °F ambient
 Capacities and Ice making water values based on 20% slowdown (harvest cycle only)
 Individual plumbing lines to open sewer or cooling tower are required for condenser water outlet & drains

<p>Refrigerant: Type: R22 System Charge: 90 lbs</p> <p>Machine Weights: Ice Machine (w/stainless steel casings) Shipping: 1200 lbs Operating: 1260 lbs Air cooled condenser Shipping: 325 lbs Operating: 300 lbs</p> <p>Condenser Type Options: Water cooled Remote Air cooled</p>	<p>Ice Type: Specify Cylinder or Crushed Optional Dual Ice feature available Special Crushed Ice (extra charge) 1 1/2" Long Cylinder Ice (extra charge)</p> <p>General Requirements Water (makeup & condenser) Minimum Water Pressure: 30 psig Maximum Water Pressure: 90 psig High water pressure condenser (extra charge) Ambient (at machine) Minimum Ambient: 50 °F Maximum Ambient: 90 °F</p>	<p>Options Available (no charge) Crushed Preferred (Dual ice machine) Alternating Ice (Dual ice machine)</p> <p>Options Available (extra charge) Dual Ice Feature Special Crushed Ice cutter 1 1/2" Long Cylinder Ice 7 day / 24 hr. Programmable Timer Water tank flush valve 50 Hertz Single phase Power Monitor Remote Switch Box</p>
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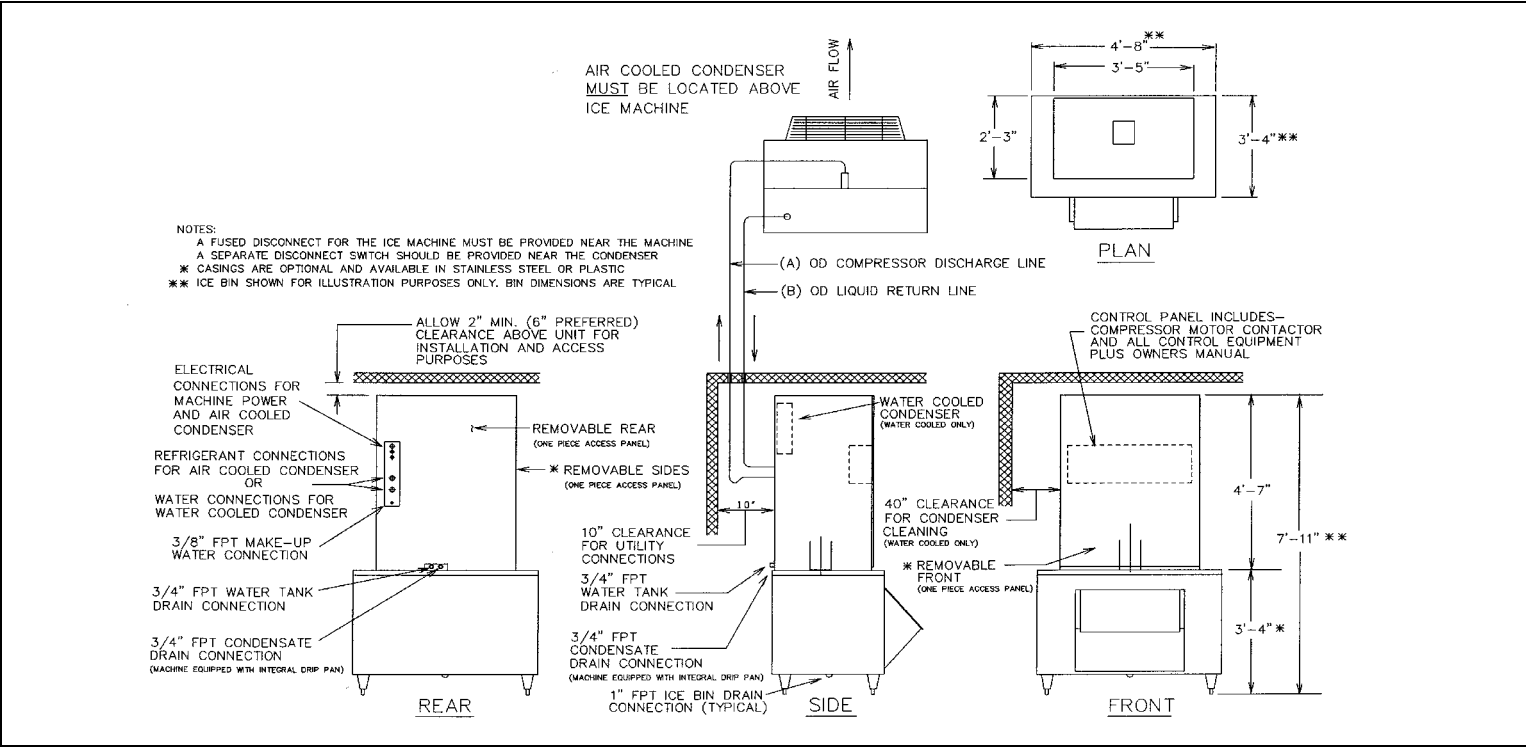
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HES-40M

Tube-Ice Machine

Models:
 04KA-PFB5-26 = 1 1/8" O.D. Cylinder Ice, 208/230V,3ph,60hz
 04KA-PFK5-26 = 1 1/8" Crushed Ice, 208/230V,3ph,60hz
 04KA-PFD5-26 = 1 1/8" Dual Ice, 208/230V,3ph,60hz
 04KA-PFB5-46 = 1 1/8" O.D. Cylinder Ice 460V,3ph,60hz
 04KA-PFK5-46 = 1 1/8" Crushed Ice 460V,3ph,60hz
 04KA-PFD5-46 = 1 1/8" Dual Ice 460V,3ph,60hz

Note: Condenser type should be entered in last two positions: WC = Water Cooled, AC = Air Cooled



	Ice Machine Electrical Information							
	Water Cooled Machine				Air Cooled Machine			
	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine
Voltage								
208/230, 3p, 60hz	27.3	32.5	55	40	35.3	40.5	65	50
460, 3p, 60hz	13.3	15.8	30	20	17.3	19.8	30	20

Note: A fused disconnect must be provided near the machine / Air cooled machines must have a disconnect near the remote condenser

Line Size Connections		
Ice Making Water		3/8" FPT
Drain Connections	Overflow	3/4" FPT
	Drip Pan	3/4" FPT
* Condenser Water Inlet & Outlet		1" FPT
** Comp. Discharge & Condenser Return		1 1/8" OD

Note: * Water Cooled Only / ** Air Cooled Only

	Motor Information												
	Water Pump			Cutter Drive			Condenser Fan			Compressor			
	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	L.R.A.	R.L.A.	Phase
208/230V, 60hz	1/2	3.8	1	1/2	4.1	1	2 @ 1/2	4 ea. (8 total)	1	6	156	20.7	3
460V, 60hz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	70	10.0	3

Makeup Water Temp (°F)	Ice Capacity (lbs/day)	Efficiency		Ice Making Water			Condenser Water				Total Heat Rejection (BTU/hr)
		Energy (KWH / 100 lbs) Condenser Type		Usage/ 100 lbs of Ice (gal)	Makeup Water Flow Rate		Water Temp In (°F)	Water Temp Out (°F)	Water Flow Rate (gpm)	Water Press. Drop (psig)	
		Water	Air		(gpm)	(gph)					
50	3455	2.82	3.56	14.4	0.35	20.8	50	67.2	5.7	1.3	49,000
60	3260	3.00	3.78	14.4	0.33	19.6	60	73.6	7.2	2.0	49,000
70	3075	3.18	4.02	14.4	0.31	18.5	70	80.8	9.1	3.0	49,000
80	2905	3.37	4.27	14.4	0.29	17.5	80	87.0	14.1	6.5	49,000
90	2745	3.57	4.52	14.4	0.28	16.5	90	94.1	24.1	16.0	49,000

Note: Air Cooled KWH / 100 lbs ratings based on fans operating @ 90% of FLA (75% of freeze cycle)
 Capacities and Energy values based on 90 °F ambient
 Capacities and Ice making water values based on 20% blowdown (harvest cycle only)
 Individual plumbing lines to open sewer or cooling tower are required for condenser water outlet & drains

Refrigerant:
 Type: R22
 System Charge: 90 lbs

Machine Weights:
 Ice Machine (w/stainless steel casings)
 Shipping: 1200 lbs
 Operating: 1260 lbs
 Air cooled condenser
 Shipping: 325 lbs
 Operating: 300 lbs

Condenser Type Options:
 Water cooled
 Remote Air cooled

Ice Type:
 Specify Cylinder or Crushed
 Optional Dual Ice feature available
 Special Crushed Ice (extra charge)
 1 1/2" Long Cylinder Ice (extra charge)

General Requirements
 Water (makeup & condenser)
 Minimum Water Pressure: 30 psig
 Maximum Water Pressure: 90 psig
 High water pressure condenser (extra charge)
 Ambient (at machine)
 Minimum Ambient: 50 °F
 Maximum Ambient: 90 °F

Options Available (no charge)
 Crushed Preferred (Dual ice machine)
 Alternating Ice (Dual ice machine)

Options Available (extra charge)
 Dual Ice Feature
 Special Crushed Ice cutter
 1 1/2" Long Cylinder Ice
 7 day / 24 hr. Programmable Timer
 Water tank flush valve
 50 Hertz
 Single phase
 Power Monitor
 Remote Switch Box

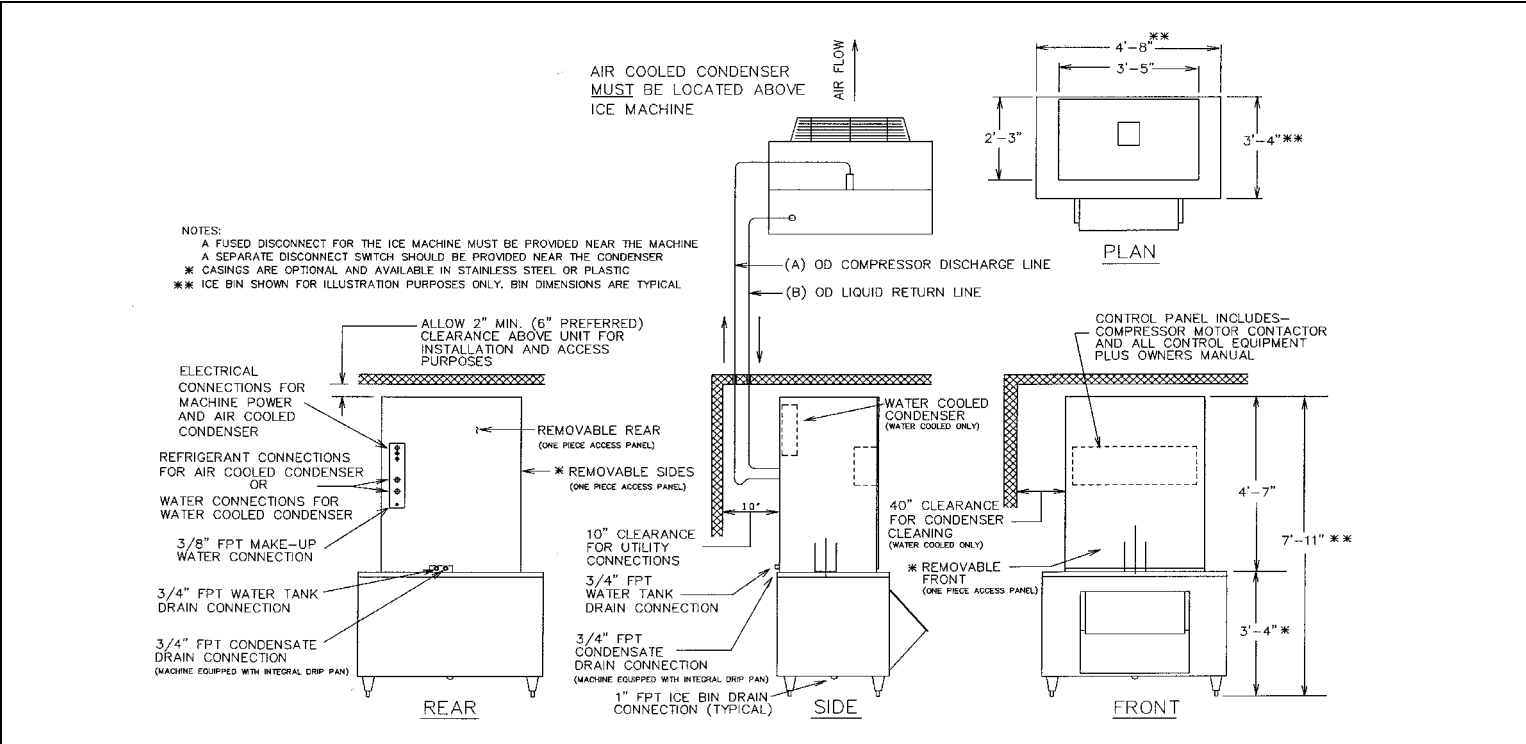
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HES-30S

Tube-Ice Machine

Models: 03KA-PFB4-26 = 7/8" O.D. Cylinder Ice, 208/230V,3ph,60hz
 03KA-PFK4-26 = 7/8" Crushed Ice, 208/230V,3ph,60hz
 03KA-PFD4-26 = 7/8" Dual Ice, 208/230V,3ph,60hz
 03KA-PFB4-46 = 7/8" O.D. Cylinder Ice 460V,3ph,60hz
 03KA-PFK4-46 = 7/8" Crushed Ice 460V,3ph,60hz
 03KA-PFD4-46 = 7/8" Dual Ice 460V,3ph,60hz

Note: Condenser type should be entered in last two positions: WC = Water Cooled, AC = Air Cooled



Ice Machine Electrical Information

	Water Cooled Machine				Air Cooled Machine			
	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine
Voltage								
208/230, 3p, 60hz	21.6	25.4	45	30	29.6	33.4	50	40
460, 3p, 60hz	11.5	13.6	25	20	15.5	17.6	30	20

Note: A fused disconnect must be provided near the machine / Air cooled machines must have a disconnect near the remote condenser

Line Size Connections

Ice Making Water		3/8" FPT
Drain	Overflow	3/4" FPT
Connections	Drip Pan	3/4" FPT
(A)	* Condenser Water Inlet & Outlet	3/4" FPT
(B)	** Comp. Discharge & Condenser Return	1 1/8" OD

Note: * Water Cooled Only / ** Air Cooled Only

Motor Information

Voltage	Water Pump			Cutter Drive			Condenser Fan			Compressor			
	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	L.R.A.	R.L.A.	Phase
208/230V, 60hz	1/2	3.8	1	1/2	4.1	1	2 @ 1/2	4 ea. (8 total)	1	4	99	15.0	3
460V, 60hz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	50	8.2	3

Efficiency

Makeup Water Temp (°F)	Ice Capacity (lbs/day)	Energy (KWH / 100 lbs) Condenser Type		Usage/ 100 lbs of Ice of Ice (gal)		Makeup Water Flow Rate (gpm) (gph)		Water Temp In (°F)	Water Temp Out (°F)	Water Flow Rate (gpm)	Water Press. Drop (psig)	Total Heat Rejection (BTU/hr)
		Water	Air	(gal)	(gpm)	(gph)						
		Water	Air	(gal)	(gpm)	(gph)						
50	3070	2.43	3.27	14.4	0.31	18.5	50	67.4	3.8	2.9	33,000	
60	2920	2.56	3.45	14.4	0.29	17.6	60	74.0	4.7	4.5	33,000	
70	2745	2.73	3.69	14.4	0.28	16.5	70	81.2	5.9	9.0	33,000	
80	2535	2.97	4.01	14.4	0.25	15.3	80	87.9	8.4	15.0	33,000	
90	2230	3.28	4.44	14.4	0.22	13.4	90	94.5	14.7	26.0	33,000	

Note: Air Cooled KWH / 100 lbs ratings based on fans operating @ 90% of FLA (75% of freeze cycle)
 Capacities and Energy values based on 90 °F ambient
 Capacities and Ice making water values based on 20% slowdown (harvest cycle only)
 Individual plumbing lines to open sewer or cooling tower are required for condenser water outlet & drains

Refrigerant:

Type: R22
 System Charge: 90 lbs

Machine Weights:

Ice Machine (w/stainless steel casings)
 Shipping: 1150 lbs
 Operating: 1210 lbs
 Air cooled condenser
 Shipping: 310 lbs
 Operating: 275 lbs

Condenser Type Options:

Water cooled
 Remote Air cooled

Ice Type:

Specify Cylinder or Crushed
 Optional Dual Ice feature available
 Special Crushed Ice (extra charge)
 1 1/2" Long Cylinder Ice (extra charge)

General Requirements

Water (makeup & condenser)
 Minimum Water Pressure: 30 psig
 Maximum Water Pressure: 90 psig
 High water pressure condenser (extra charge)
 Ambient (at machine)
 Minimum Ambient: 50 °F
 Maximum Ambient: 90 °F

Options Available (no charge)

Crushed Preferred (Dual ice machine)
 Alternating Ice (Dual ice machine)

Options Available (extra charge)

Dual Ice Feature
 Special Crushed Ice cutter
 1 1/2" Long Cylinder Ice
 7 day / 24 hr. Programmable Timer
 Water tank flush valve
 50 Hertz
 Single phase
 Power Monitor
 Remote Switch Box

Vogt Ice LLC

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 Suite # 135
 Louisville, KY 40210

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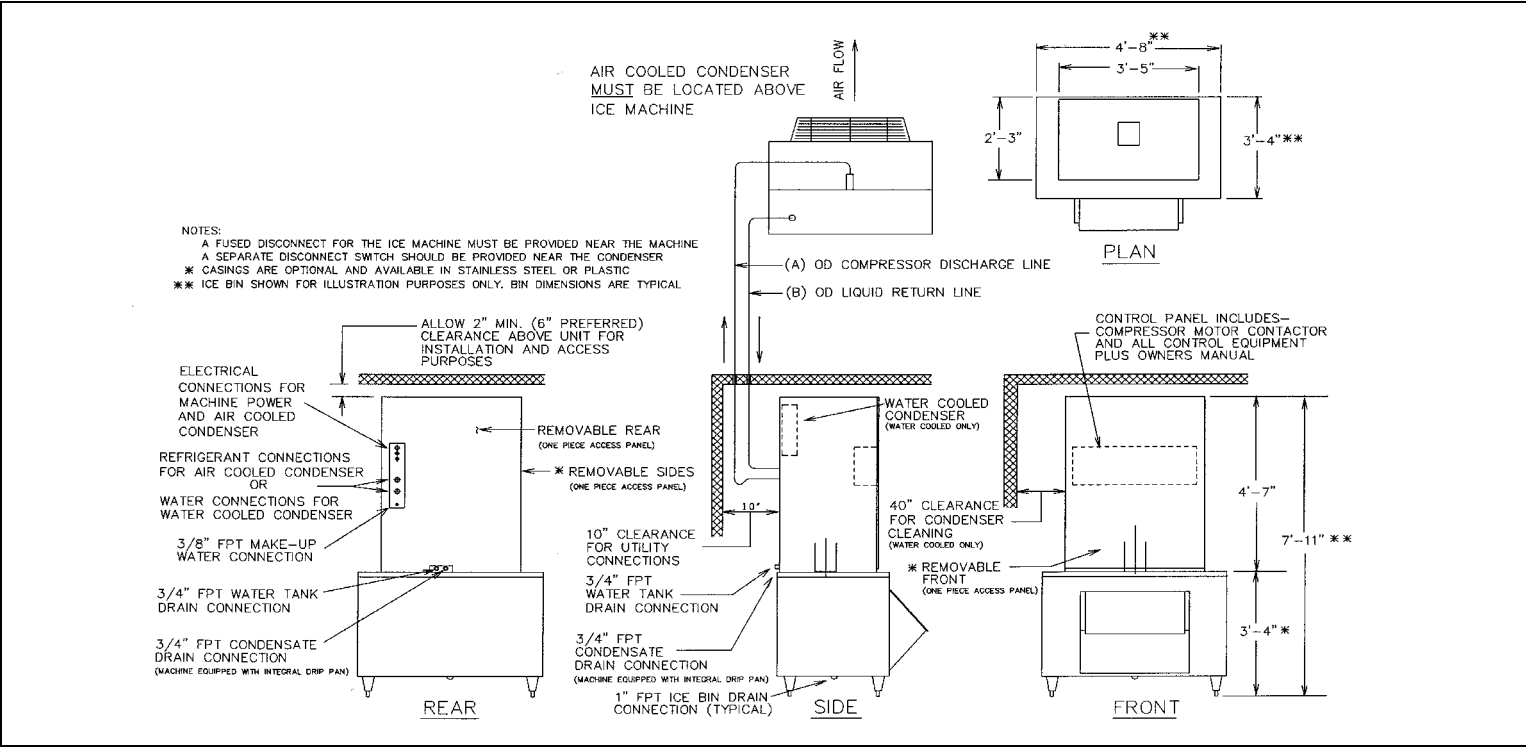
Web Site: www.vogtice.com

HES-30M

Tube-Ice Machine

Models: 03KA-PFB5-26 = 1 1/8" O.D. Cylinder Ice, 208/230V,3ph,60hz
 03KA-PFK5-26 = 1 1/8" Crushed Ice, 208/230V,3ph,60hz
 03KA-PFD5-26 = 1 1/8" Dual Ice, 208/230V,3ph,60hz
 03KA-PFB5-46 = 1 1/8" O.D. Cylinder Ice 460V,3ph,60hz
 03KA-PFK5-46 = 1 1/8" Crushed Ice 460V,3ph,60hz
 03KA-PFD5-46 = 1 1/8" Dual Ice 460V,3ph,60hz

Note: Condenser type should be entered in last two positions: WC = Water Cooled, AC = Air Cooled



	Ice Machine Electrical Information							
	Water Cooled Machine				Air Cooled Machine			
	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine
Voltage								
208/230, 3p, 60hz	21.6	25.4	45	30	29.6	33.4	50	40
460, 3p, 60hz	11.5	13.6	25	20	15.5	17.6	30	20

Note: A fused disconnect must be provided near the machine / Air cooled machines must have a disconnect near the remote condenser

Line Size Connections		
Ice Making Water		3/8" FPT
Drain Connections	Overflow	3/4" FPT
	Drip Pan	3/4" FPT
(A) * Condenser Water Inlet & Outlet		3/4" FPT
(B) ** Comp. Discharge & Condenser Return		1 1/8" OD

Note: * Water Cooled Only / ** Air Cooled Only

	Motor Information												
	Water Pump			Cutter Drive			Condenser Fan			Compressor			
	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	L.R.A.	R.L.A.	Phase
208/230V, 60hz	1/2	3.8	1	1/2	4.1	1	2 @ 1/2	4 ea. (8 total)	1	4	99	15.0	3
460V, 60hz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	50	8.2	3

Makeup Water Temp (°F)	Ice Capacity (lbs/day)	Efficiency		Ice Making Water			Condenser Water				Total Heat Rejection (BTU/hr)
		Energy (KWH / 100 lbs) Condenser Type		Usage/ 100 lbs of Ice (gal)	Makeup Water Flow Rate		Water Temp In (°F)	Water Temp Out (°F)	Water Flow Rate (gpm)	Water Press. Drop (psig)	
		Water	Air		(gpm)	(gph)					
50	2610	2.88	3.89	14.4	0.26	15.7	50	68.3	3.6	2.9	33,000
60	2485	3.03	4.10	14.4	0.25	15.0	60	75.0	4.4	4.5	33,000
70	2335	3.23	4.37	14.4	0.23	14.1	70	81.6	5.7	9.0	33,000
80	2155	3.51	4.75	14.4	0.22	13.0	80	88.1	8.2	15.0	33,000
90	1955	3.88	5.26	14.4	0.20	11.8	90	94.6	14.3	26.0	33,000

Note: Air Cooled KWH / 100 lbs ratings based on fans operating @ 90% of FLA (75% of freeze cycle)
 Capacities and Energy values based on 90 °F ambient
 Capacities and Ice making water values based on 20% blowdown (harvest cycle only)
 Individual plumbing lines to open sewer or cooling tower are required for condenser water outlet & drains

<p>Refrigerant: Type: R22 System Charge: 90 lbs</p> <p>Machine Weights: Ice Machine (w/stainless steel casings) Shipping: 1150 lbs Operating: 1210 lbs Air cooled condenser Shipping: 310 lbs Operating: 275 lbs</p> <p>Condenser Type Options: Water cooled Remote Air cooled</p>	<p>Ice Type: Specify Cylinder or Crushed Optional Dual Ice feature available Special Crushed Ice (extra charge) 1 1/2" Long Cylinder Ice (extra charge)</p> <p>General Requirements Water (makeup & condenser) Minimum Water Pressure: 30 psig Maximum Water Pressure: 90 psig High water pressure condenser (extra charge) Ambient (at machine) Minimum Ambient: 50 °F Maximum Ambient: 90 °F</p>	<p>Options Available (no charge) Crushed Preferred (Dual ice machine) Alternating Ice (Dual ice machine)</p> <p>Options Available (extra charge) Dual Ice Feature Special Crushed Ice cutter 1 1/2" Long Cylinder Ice 7 day / 24 hr. Programmable Timer Water tank flush valve 50 Hertz Single phase Power Monitor Remote Switch Box</p>
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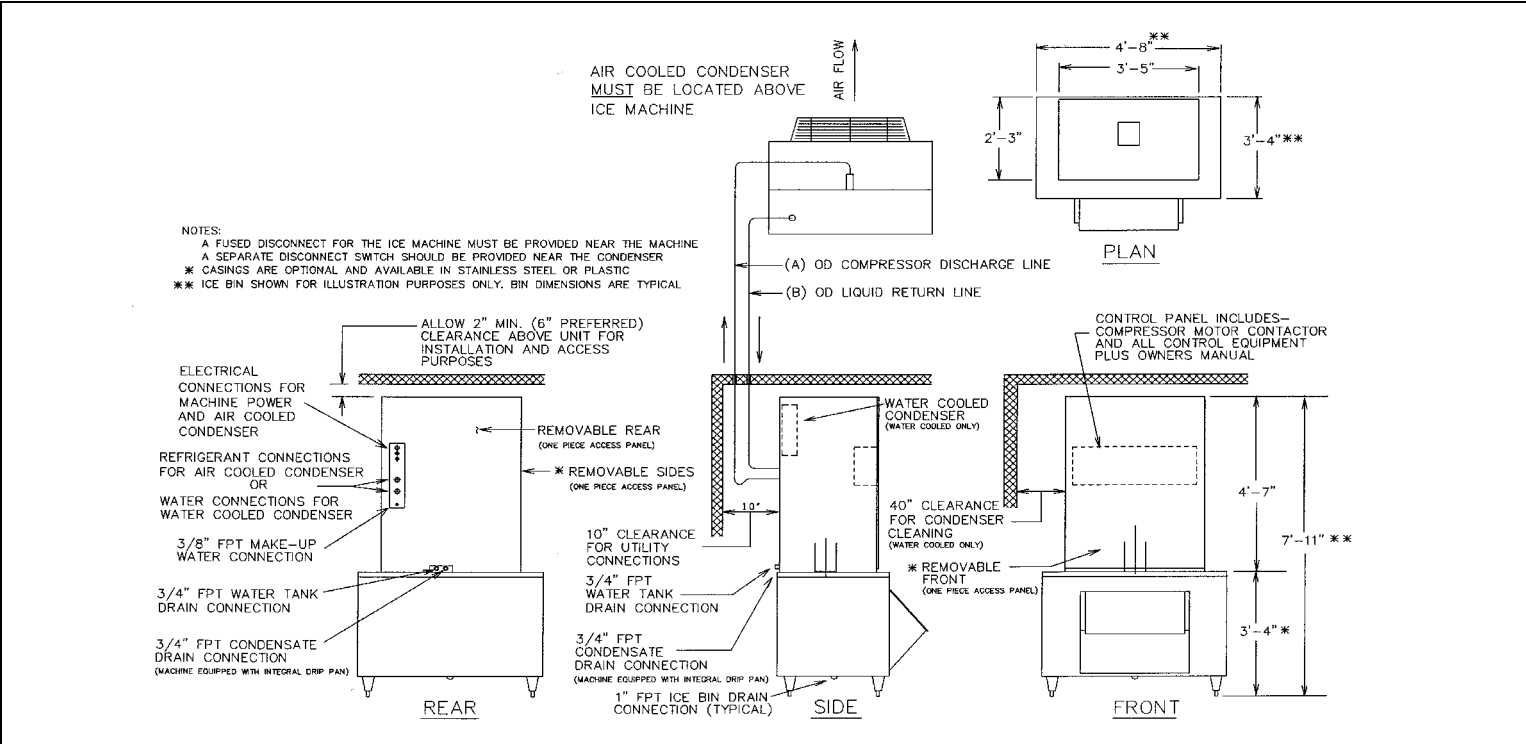
Vogt Ice LLC	1000 West Ormsby Suite # 135 Louisville, KY 40210	Sales Phone #: (800) 853-8648 (502) 635-3000 Sales Fax Phone #: (502) 634-0479	Web Site: www.vogtice.com
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HES-20S

Tube-Ice Machine

Models: 02KA-PFB4-26 = 7/8" O.D. Cylinder Ice, 208/230V,3ph,60hz
 02KA-PFK4-26 = 7/8" Crushed Ice, 208/230V,3ph,60hz
 02KA-PFD4-26 = 7/8" Dual Ice, 208/230V,3ph,60hz
 02KA-PFB4-46 = 7/8" O.D. Cylinder Ice 460V,3ph,60hz
 02KA-PFK4-46 = 7/8" Crushed Ice 460V,3ph,60hz
 02KA-PFD4-46 = 7/8" Dual Ice 460V,3ph,60hz

Note: Condenser type should be entered in last two positions: WC = Water Cooled, AC = Air Cooled



	Ice Machine Electrical Information							
	Water Cooled Machine				Air Cooled Machine			
Voltage	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine
208/230, 3p, 60hz	18.0	20.9	35	25	20.5	23.4	35	25
460, 3p, 60hz	9.0	10.4	20	15	10.3	11.7	20	15

Note: A fused disconnect must be provided near the machine / Air cooled machines must have a disconnect near the remote condenser

Line Size Connections		
Ice Making Water		3/8" FPT
Drain Connections	Overflow	3/4" FPT
	Drip Pan	3/4" FPT
* Condenser Water Inlet & Outlet		3/4" FPT
** Comp. Discharge & Condenser Return		1 1/8" OD

Note: * Water Cooled Only / ** Air Cooled Only

Voltage	Motor Information												
	Water Pump			Cutter Drive			Condenser Fan			Compressor			
	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	L.R.A.	R.L.A.	Phase
208/230V, 60hz	1/2	3.8	1	1/2	4.1	1	1/3	2.5	1	3	77	11.4	3
460V, 60hz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	39	5.7	3

Makeup Water Temp (°F)	Ice Capacity (lbs/day)	Efficiency		Ice Making Water			Condenser Water				Total Heat Rejection (BTU/hr)
		Energy (KWH / 100 lbs) Condenser Type		Usage/ 100 lbs of Ice (gal)	Makeup Water Flow Rate		Water Temp In (°F)	Water Temp Out (°F)	Water Flow Rate (gpm)	Water Press. Drop (psig)	
		Water	Air		(gpm)	(gph)					
50	2075	3.10	3.52	14.4	0.21	12.5	50	83.9	1.3	0.4	22,000
60	1945	3.31	3.76	14.4	0.20	11.7	60	87.5	1.6	0.6	22,000
70	1815	3.56	4.04	14.4	0.18	10.9	70	90.0	2.2	1.0	22,000
80	1690	3.84	4.36	14.4	0.17	10.2	80	91.0	4.0	3.3	22,000
90	1560	4.16	4.73	14.4	0.16	9.4	90	96.1	7.2	10.0	22,000

Note: Air Cooled KWH / 100 lbs ratings based on fans operating @ 90% of FLA (75% of freeze cycle)
 Capacities and Energy values based on 90 °F ambient
 Capacities and Ice making water values based on 20% blowdown (harvest cycle only)
 Individual plumbing lines to open sewer or cooling tower are required for condenser water outlet & drains

Refrigerant: Type: R22 System Charge: 90 lbs Machine Weights: Ice Machine (w/stainless steel casings) Shipping: 1050 lbs Operating: 1110 lbs Air cooled condenser Shipping: 195 lbs Operating: 167 lbs Condenser Type Options: Water cooled Remote Air cooled	Ice Type: Specify Cylinder or Crushed Optional Dual Ice feature available Special Crushed Ice (extra charge) 1 1/2" Long Cylinder Ice (extra charge) General Requirements Water (makeup & condenser) Minimum Water Pressure: 30 psig Maximum Water Pressure: 90 psig High water pressure condenser (extra charge) Ambient (at machine) Minimum Ambient: 50 °F Maximum Ambient: 90 °F	Options Available (no charge) Crushed Preferred (Dual ice machine) Alternating Ice (Dual ice machine) Options Available (extra charge) Dual Ice Feature Special Crushed Ice cutter 1 1/2" Long Cylinder Ice 7 day / 24 hr. Programmable Timer Water tank flush valve 50 Hertz Single phase Power Monitor Remote Switch Box
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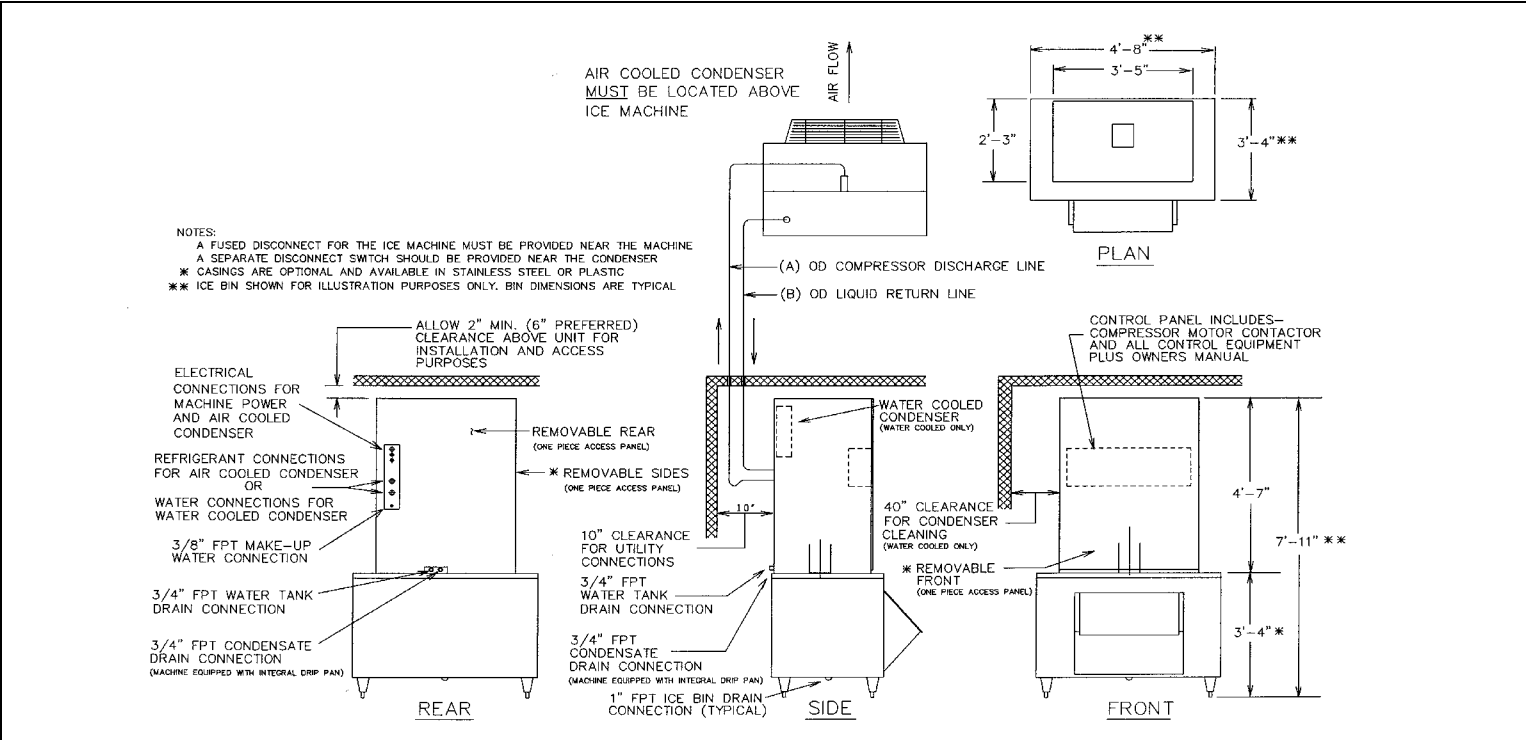
Vogt Ice LLC 1000 West Ormsby Suite # 135 Louisville, KY 40210 Sales Phone #: (800) 853-8648 (502) 635-3000 Sales Fax Phone #: (502) 634-0479 Web Site: www.vogtice.com

HES-20M

Tube-Ice Machine

Models: 02KA-PFB5-26 = 1 1/8" O.D. Cylinder Ice, 208/230V,3ph,60hz
 02KA-PFK5-26 = 1 1/8" Crushed Ice, 208/230V,3ph,60hz
 02KA-PFD5-26 = 1 1/8" Dual Ice, 208/230V,3ph,60hz
 02KA-PFB5-46 = 1 1/8" O.D. Cylinder Ice 460V,3ph,60hz
 02KA-PFK5-46 = 1 1/8" Crushed Ice 460V,3ph,60hz
 02KA-PFD5-46 = 1 1/8" Dual Ice 460V,3ph,60hz

Note: Condenser type should be entered in last two positions: WC = Water Cooled, AC = Air Cooled



	Ice Machine Electrical Information							
	Water Cooled Machine				Air Cooled Machine			
	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine	F.L.A.	Min. Ampacity	Max. Fuse	Service to Machine
Voltage								
208/230, 3p, 60hz	18.0	20.9	35	25	20.5	23.4	35	25
460, 3p, 60hz	9.0	10.4	20	15	10.3	11.7	20	15

Line Size Connections		
Ice Making Water		3/8" FPT
Drain	Overflow	3/4" FPT
Connections	Drip Pan	3/4" FPT
(A)	* Condenser Water Inlet & Outlet	3/4" FPT
(B)	** Comp. Discharge & Condenser Return	1 1/8" OD

Note: A fused disconnect must be provided near the machine / Air cooled machines must have a disconnect near the remote condenser

Note: * Water Cooled Only / ** Air Cooled Only

	Motor Information												
	Water Pump			Cutter Drive			Condenser Fan			Compressor			
	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	F.L.A.	Phase	H.P.	L.R.A.	R.L.A.	Phase
Voltage													
208/230V, 60hz	1/2	3.8	1	1/2	4.1	1	1/3	2.5	1	3	77	11.4	3
460V, 60hz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	39	5.7	3

Makeup Water Temp (°F)	Ice Capacity (lbs/day)	Efficiency		Ice Making Water		Condenser Water				Total Heat Rejection (BTU/hr)	
		Energy (KWH / 100 lbs) Condenser Type		Usage/ 100 lbs of Ice (gal)	Makeup Water Flow Rate		Water Temp In (°F)	Water Temp Out (°F)	Water Flow Rate (gpm)		Water Press. Drop (psig)
		Water	Air		(gpm)	(gph)					
50	1765	3.62	4.11	14.4	0.18	10.6	50	86.7	1.2	0.4	22,000
60	1655	3.87	4.39	14.4	0.17	10.0	60	89.3	1.5	0.6	22,000
70	1545	4.15	4.71	14.4	0.15	9.3	70	91.0	2.1	1.0	22,000
80	1435	4.48	5.08	14.4	0.14	8.6	80	91.3	3.9	3.3	22,000
90	1325	4.86	5.52	14.4	0.13	8.0	90	96.4	6.9	10.0	22,000

Note: Air Cooled KWH / 100 lbs ratings based on fans operating @ 90% of FLA (75% of freeze cycle)
 Capacities and Energy values based on 90 °F ambient
 Capacities and Ice making water values based on 20% blowdown (harvest cycle only)
 Individual plumbing lines to open sewer or cooling tower are required for condenser water outlet & drains

<p>Refrigerant: Type: R22 System Charge: 90 lbs</p> <p>Machine Weights: Ice Machine (w/stainless steel casings) Shipping: 1050 lbs Operating: 1110 lbs</p> <p>Air cooled condenser Shipping: 195 lbs Operating: 167 lbs</p> <p>Condenser Type Options: Water cooled Remote Air cooled</p>	<p>Ice Type: Specify Cylinder or Crushed Optional Dual Ice feature available Special Crushed Ice (extra charge) 1 1/2" Long Cylinder Ice (extra charge)</p> <p>General Requirements Water (makeup & condenser) Minimum Water Pressure: 30 psig Maximum Water Pressure: 90 psig High water pressure condenser (extra charge)</p> <p>Ambient (at machine) Minimum Ambient: 50 °F Maximum Ambient: 90 °F</p>	<p>Options Available (no charge) Crushed Preferred (Dual ice machine) Alternating Ice (Dual ice machine)</p> <p>Options Available (extra charge) Dual Ice Feature Special Crushed Ice cutter 1 1/2" Long Cylinder Ice 7 day / 24 hr. Programmable Timer Water tank flush valve 50 Hertz Single phase Power Monitor Remote Switch Box</p>
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