General

The swimming pools and spas consist of one-piece fiberglass construction shop-formed over a mold. The material is fiberglass reinforced plastic (FRP), a minimum of 1/4 inch (6.4 mm) thick, composed of isophtalic resin, vinyl ester resin, and fiberglass. The surface finish is a neo pentyl glycol gel coat. Latham Pools produces various styles of swimming pools and spas. When installed in accordance to Latham Pools installation procedures, the pools and spas comply with applicable requirements of the following codes:

2015/2018 International Building Code® (IBC) 2018 International Residential Code (IRC) 1997 Uniform Building Code (UBC) BOCA® National Building Code/2003 (BNBC) 2018 International Plumbing Code® (IPC) 2012/2015 IAPMO Uniform Plumbing Code (IAPMO UPC) 2012 ANSI/APSP/ICC-5 Residential Inground Swimming Pools 2014 ANSI/APSP/ICC-3 Permanently Installed Residential Spas and Swim Spas 2013 ANSI/APSP/ICC-7 Suction entrapment Avoidance 2011 ANSI/APSP-16

2018 International Swimming Pool and Spa Code -(ISPSC-ICC) 2007 ANSI/ASME-A112.19.8 2014/2017 National Electric Code (NEC) 2015 Uniform Swimming Pool, Spa, Hot tub Code (IAPMO)

The overall pool dimensions, depths and capacities are shown in Table 1 and Table 4. The units comply with ANSI/NSPI-5, specified in Section AG103.1 of the IRC, and IAPMO IGC-2000*, specified in the

Models described in Table 2, Table 3, and Table 4 can be placed up to 19-1/2 inches (49.5mm) above ground. These pools and spas may be placed with or without concrete or wood decking. Unless elevated portions of the units are protected from sunlight by soil berms, decking, etc., these portions must be coated with a UV-inhibiting opaque paint that is compatible with the laminate.

All plumbing must comply with the IPC or UPC. Electrical work must comply with the code in effect at the construction site. The pool and spa must remain full of water at all times. A permanent sign, bearing the following statement, must be attached to the pumping equipment: Notice-The pool or spa is designed to remain full of water at all times. The pool shell may be damaged if the water level is allowed to drop below the skimmer. When appreciable draw-down is noticed or if it becomes necessary to drain the pool or spa, contact Latham Pools or its dealers for instructions.

A permanent label must be installed adjacent to the above sign indicating the Latham Pools dealer's name, address and telephone

Installation Procedure:

Latham pools and spas may be installed without a soil investigation by a registered design professional (RDP), subject to the building official's approval, provided none of the following conditions are encountered at

- The existence of uncontrollable groundwater within the depth of the pool or spa excavation.
- The existence of an uncompacted fill in contact with any portion
- The existence of any soil types with an angle of repose that will not support the walls of the excavation at desired slopes.
- Danger to adjacent structures posed by the proposed pool or spa location
- The existence of any cracks or openings in soil that would not confine sand or 1/2" clean gravel bedding.

If any of the conditions above is encountered, excavation must cease immediately. The specified conditions at the site must then be reviewed and recommendations made by the RDP. The building official must approve the RDP's report before work is completed.

The pool or spa excavation profile must coincide with the contours of the pool. The over excavation is minimum 6 inches (152mm) on the

sides and ends. The over excavation at the pool bottom is minimum 4 inches (102mm). The backfill for the pool or spa bottom is a layer of 3-inch-thick (76mm) bedding sand or 1/2" clean gravel matching the pool or spa profile

General Notes

This backfill layer is compacted using a manual tamper and water. The pool or spa is then set into place using a crane, excavator or manually and be within 1 inch (25mm) of level. Simultaneous water-fill and backfill operations then commence. The backfill is compacted with a tamper and water. The installer must ensure that the backfill level and water level are approximately the same throughout this procedure. After completion of the backfill and plumbing, the decking is placed. Decks are prepared as indicated in Figures 1 through 4:

- Cantilevered concrete decks are constructed as noted in Figure 1 in all cases.
- Cantilevered decks are constructed with brick or stone as noted Figure 2 in all cases.
- Raised bond beams are constructed as noted in Figure 3 in all
- Aboveground installations are constructed as noted in Figure 4 4. in all cases

Barriers are required where pools are on premises of UBC Group R, Division 3, Occupancies or IBC Group R Occupancies. The barriers must comply with Appendix Chapter 4, Division 1, of the UBC or Section 3109.4 of the IBC

Expansive soils:

For installation of pools or spas in expansive soils, the following additional installation details must be followed subject to code official's approval:

- All surfaces adjacent to the pool or spas must be excavated to a minimum depth of 12 inches (305 mm) beneath the pool bottom and minimum 6 inches (152 mm) behind the pool walls.
- Any soft or loose soils exposed by step 1 must be removed until exposed material is solid. If the soil is still soft and loose, the upper 6 inches (152 mm) of all horizontal excavation surfaces must be scarified and compacted with mechanical equipment. The compacted surfaces and the excavated wall surfaces must be maintained in a moist condition until the first lift of backfill or fill is placed against the surface. The term compaction implies any method necessary to consolidate the native and fill materials to keep the pool or structure from settling.
- The excavated bottom area of the pool or spa must be backfilled with granular import material to approximately 6 inches (152 mm) below the bottom of the pool or spa, wetted and compacted.
- The remaining 6 inches (152 mm) must be backfilled beneath the pool or spa and outside the pool walls with compacted clean granular import material. The pool or spa must be filled with water as backfilling progresses to a level equivalent to that of the backfill. The backfill must be placed in compacted layers of approximately 6 inches (152 mm) while a uniform height of backfill is maintained around the pool or spa.
- 5. Positive surface drainage away from the perimeter of the pool and surrounding deck is required and critical to installations in highly expansive soils. Surface area drains and surface drainage swales or sub-drains must be placed as needed to prevent ponding or saturation of the soil around the perimeter and vicinity of the pool to prevent excessive shrink-swell or volume changes in the soil.

Latham pools and spas are identified by the following information imprinted on the top step of the pool or spa: manufacturer's name (Latham Pools) and address, pool or spa model designation, a coded serial number and the evaluation report number (ESR-2014). The units also bear the label of the quality control agency, Columbia Research & Testing Corporation (AA-527).

Findings: That the fiberglass one piece swimming pools and spas are in compliance with the above listed codes as noted in ESR-2014 subject to the following conditions.

The construction and pool/spa installation comply with this report and the manufacturer's instructions.

- 2. Electrical and plumbing installation comply with the respective codes in effect at the construction site.
- 3. That all pools are installed in accordance with manufacturer's recommendations
- The pools and spas produced by Latham Pools Northeast, Inc. 176 Latham Drive Industrial Park, Jane Lew, West Virginia; Latham Pools Central, Inc., 10600 West Interstate 20 East, Midland, Texas; and Latham Pools, Inc., 121 Crawford Road, Williams, California; Latham Pools Southeast, 40119 Country Road 54E, Zephyrhills, FL are manufactured under a quality control program with inspections by Columbia Research & Testing Corporation (AA-527).

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Page 1	General Notes/Expansive Soils
Page 2	Tables 1-3
Page 3	Figures 1-8
Page 4	Pool Models
Page 5	Pool Models
Page 6	Pool Models
Page 7	Pool Models
Page 8	Spa Models & Tanning Ledges
Page 9	Alternative Recirculation Systems

Length, width and depth may vary up to 3% - all dimensions are to outside edge of coping, measured from parallel lines.

Reviewed by:

Columbia Research & Testing 10140 Starr Road, P.O. Box 933 Windsor, CA 95492 Phone 707-495-0420 IAS and ICC/ES Approved Testing Laboratory

Address and Name **Project** I Contractor

Date

e Hawaiian Pools, Trilogy Pools n Report Number (ESR-2014) **Products** Pool Pool, Blue I Evaluation F -atham atham

Jane Lew, V Midland, T. Williams, C Zephyrhills, E

Page of 9

TABLE 1- POOLS

POOL	CODE	SIZE	DEPTHS	GALLONS	SQUARE F	AGE	POC
		WIDTH x LENGTH	SHALLOW, DEEP	APPROX.	FEET N	UMBER	TYP
Aruba	ARU	11' x 22'	3'-6", 5'	5,200	177	Page 4	Type
Astoria	FRX	15'-10" x 40'	3'-6", 7'	15,600	548	Page 4	Type
Axiom	CRUJ	16' x 35'	4'-6", 6'-6"	11,600	395	Page 4	Type
Barcelona	BAR	16' x 38'	3'-6" , 7'	18,500	518	Page 4	Туре
Bay Isle	внву	14'-6" x 29'-10"	3', 6'-6"	10,000	318	Page 4	Type
Bermuda	AL	12' x 26'	3'-6" , 5'-6"	7,000	226	Page 4	Туре
Cambridge	LN	16' x 36'	3'-6" , 7'	18,000	451	Page 4	Type
Cancun	СС	16' x 35'	3'-6" , 6'-6"	14,000	397	Page 4	Туре
Cancun Deluxe	ссх	16' x 35'	4'-3" , 6'-6"	11,500	381	Page 4	Type
Cape Cod	CA	14' x 31'	3'-6" , 6'	12,000	325	Page 4	Type
Caribbean	MR	16' x 40'	3'-6" - 6'-6"	17,000	468	Page 4	Туре
Carmel	FF	13'-8" x 30'	3'-6" , 6'	12,000	345	Page 4	Туре
Chesapeake	СР	12' x 31'	3'-7",5'	10,500	292	Page 4	Type
Claremont	V	14' x 33'	3'-7" , 5'-4"	11,700	416	Page 4	Туре
Clearwater	SP	10'-11" x 20'	3'-5" , 5'	3,600	165	Page 4	Type
Corinthian 12	RT12	12' x 25'	3'-6" , 5'-5"	5,100	254	Page 4	Туре
Corinthian 14	RT14	14' x 30'	3'-6", 6'	8,200	365	Page 4	Type
Corinthian 16	RT16	15'-10" x 40'	3'-6", 7'	15,400	563	Page 4	Туре
Coronado	ВНВІ	15' x 34'	3'-6", 6'-6"	13,000	410	Page 4	Туре
Deiray	В	11'-10" x 25'-5"	4'-6"	8,100	264	Page 5	Туре
Eclipse	CRUM	12' x 26'	4' x 5'	5,300	214	Page 5	Туре
	FR12	12' x 26'	3'-6", 5'-8"	7,600	275	Page 5	Type
Empress	FJI	15' x 34'	3'-6", 6'	12,000	375	Page 5	Type
Fiji			3'-6", 6'	11,300	363	Page 5	Туре
Fortitude	CRSBL	14' x 30' 12' x 25'-1"	3'-7" , 5'-5"	6,000	213	Page 5	Type
Freeport	FP		3'-9" , 5'-4"	9,000	364	Page 5	Туре
Gemini	TGEM	16' x 32'-7"	3'-10" , 8'-6"	20,000	553	Page 5	Тур
Genesis	TGEN	16' x 40'-2"		19,600	506	Page 5	Тур
Gulf Coast	GC	15' 10"x 39'-7"	3'-5" , 7'-11"	15,000	423	Page 5	Type
Gulf Shore	GS	15'-7" x 34'-8"	3'-9",5'-4"	7,500	264	Page 5	Туре
Helios	THEL	12' x 24'	3'-2",5'	3,750	138	Page 5	Туре
Jamaica	LD	9'-10" x 19'-9" 12' x 26'-9"		6,800	233	Page 5	Туре
Java	JV		3'-6" , 5'-5" 3'-7" , 6'	9,000	230	Page 5	Туре
Key West	BFF	12' x 25'-7"			555	Page 5	Туре
Kingston	AP	16' x 38'	3'-6" , 5'-8" 3'-6" , 6'	17,500	310	Page 5	Туре
Laguna	LG	14' x 30'		10,000	300	Page 5	
Laguna Deluxe	LGX	14' x 30'	4',6'	9,000 15,000	480	Page 5	Type Type
Lake Shore	CD	16' x 33'	3'-7" , 5'-5"				
Majesty	FR14	14' x 30'	3'-6", 6'	1,120	377	Page 6	Туре
Malibu	CRUD	12' x 26'	3' x 4'-7"	4,400	209	Page 6	Туре
Maui	MTK	9′-3″ x 16′	3'-4" , 4'	2,300	103	Page 6	Туре
Milan	CTL	10' x 16'	4'	2,450	135	Page 6	Туре
Monaco	AT	16' x 40'	3'-8" , 8'	21,000	585	Page 6	Тур
Montego	MT	14' x 35'	3'-7" , 5'-7"	12,400	388	Page 6	Туре
Nebula	CRUL	14' x 30'	4' x 6'	8,000	297	Page 6	Тур
Ocean Breeze	ОВ	16' x 40'	3'-6" , 5'-8"	18,900	585	Page 6	Тур
Olympia	FR16	16' x 35'	3'-6", 6'-6"	15,250	510	Page 6	Тур
Picasso	TPIC	12'-2" x 24'-1"	3'-9" , 5'-4"	5,600	213	Page 6	Тур
Rockport	RP	14' x 30'	3'-7" , 5'-11"	12,800	314	Page 6	Тур
Sirius	CRSBM	12' x 24'	3'-6", 5'-6"	6,700	239	Page 6	Тур
St. Lucia	CM	12'-3" x 23'-11"	3'-6" , 5'	6,000	211	Page 7	Тур
St. Thomas	L	14' x 31'-6"	3'-7" , 7'	13,700	396	Page 7	Тур
Stargaze 14	RRT14	14' x 35'	3'-6", 6'	10,500	429	Page 7	Тур
Sunset Bay	BHSY	14' x 32'	3'-4", 5'-5"	10,000	365	Page 7	Тур
Synergy	TSYN	16' x 40'-2"	3'-10" , 6'-3"	18,000	553	Page 7	Тур
Valencia	ST	14'-4" x 27'-7"	3'-7" , 5'-10"	10,000	288	Page 7	Тур
Vista Isle	BHVI	12' x 28'	3', 6'-10"	8,000	294	Page 7	

TABLE 2- POOLS

ABOVE GROUND INSTALLATION					
CODES	CODES				
ARU	LD				
AL	JV				
СР	BFF				
SP	CRUD				
RT12	MTK				
В	CTL				
CRUM	TPIC				
FR12	CRSBM				
FP	CM				
THEL	BHVI				

TABLE 3- SPAS

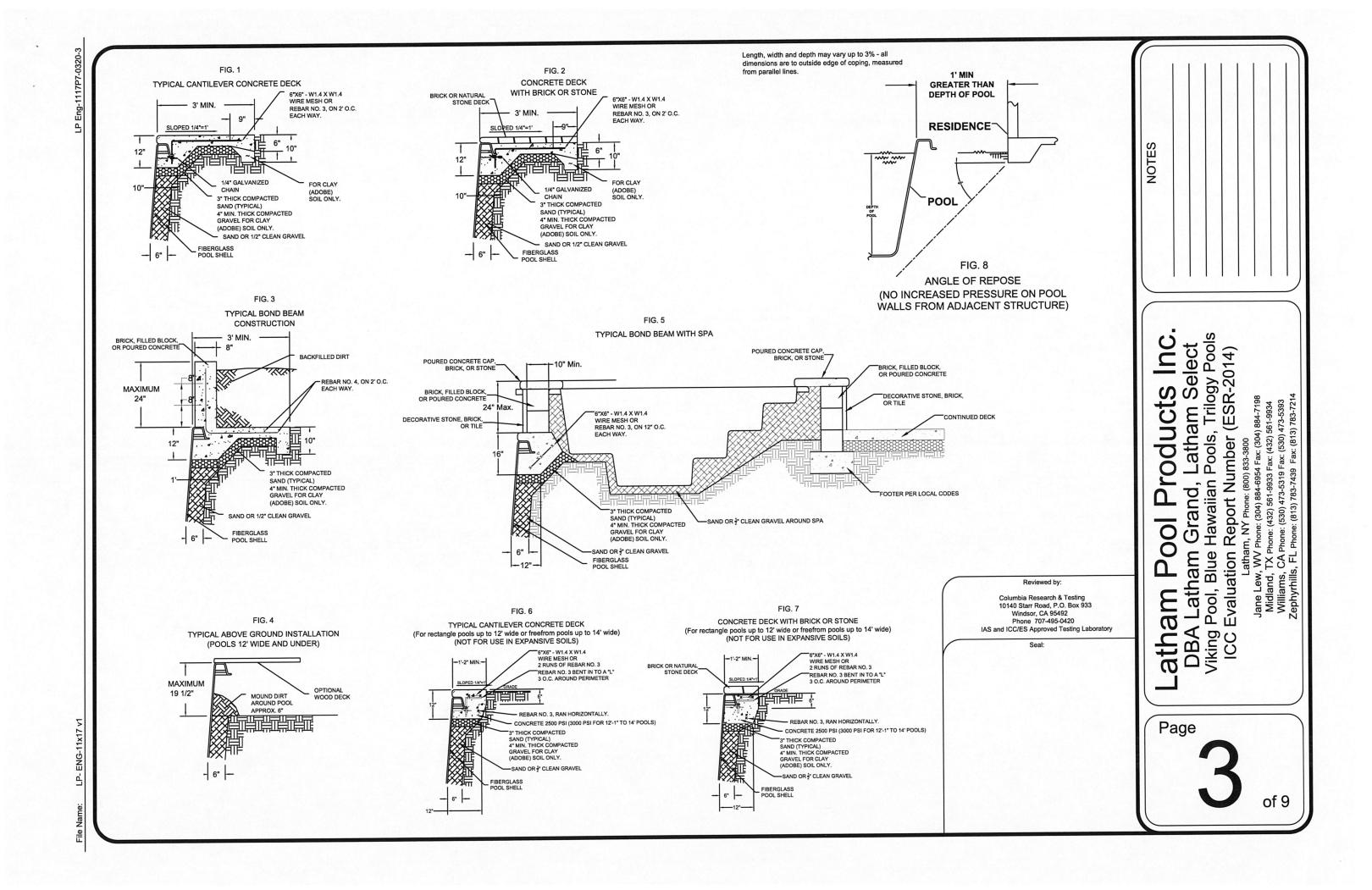
SPAS	CODE	SIZE WIDTH x LENGTH	DEPTHS	GALLONS		PAGE NUMBER

Meridian	TMRD	7'-9" x 7'-9"	2'-11"	675		Page 8
Mystic	M	9'-8" x 9'-8"	3'-4"	550		Page 8
Mystic Spillover	MSW	9'-8" x 10'-6"	3'-4"	550	64	Page 8
Placid	BOS	8'-1" x 8'-1"	3'	475	45	Page 8
Placid Spillover	BOSSW	8'-1" x 8'-11"	3'	475	45	Page 8
Regal	RG	7'-8" x 9'-8"	3'-4"	600	52	Page 8
Regal Spillover	RGSW	8'-6" x 9'-8"	3'-4"	600	52	Page 8
Royal	RY	9'-8" x 7'-8"	3'-4"	600	63	Page 8
Royal Spillover	RYSW	9'-8" x 8'-6"	3'-4"	600	63	Page 8
Shasta	LRS	7' x 7'	3'	420	31	Page 8
Shasta Spillover	LRSSW	7' x 7'-10"	3'	420	31	Page 8
Superior	CS	8'-1" x 12'-1"	3'	700	73	Page 8
Superior Spillover	CSSW	8'-11" x 12'-1"	3'	700	73	Page 8
Tanning Ledges						
Gemini Tanning Ledge	TGEMT	8'-10" x 18'-3"	10"	300	93	Page 8
Genesis/Synergy Side Tanning Ledge	TGENT	9'-4" x 16'-6"	10"	400	92	Page 8
Hermosa	VFTL	6'-10" x 10'-7"	10"	200	50	Page 8
Large Picasso Tanning Ledge	TPCLT	8'-8" x 15'-10"	10"	300	90	Page 8
Rectangle Tanning Ledge	RTL	7'-8" x 15'-8"	10"	400	105	Page 8
Semicircle	TSCT	8'-4" x 16'	10"	400	92	Page 8

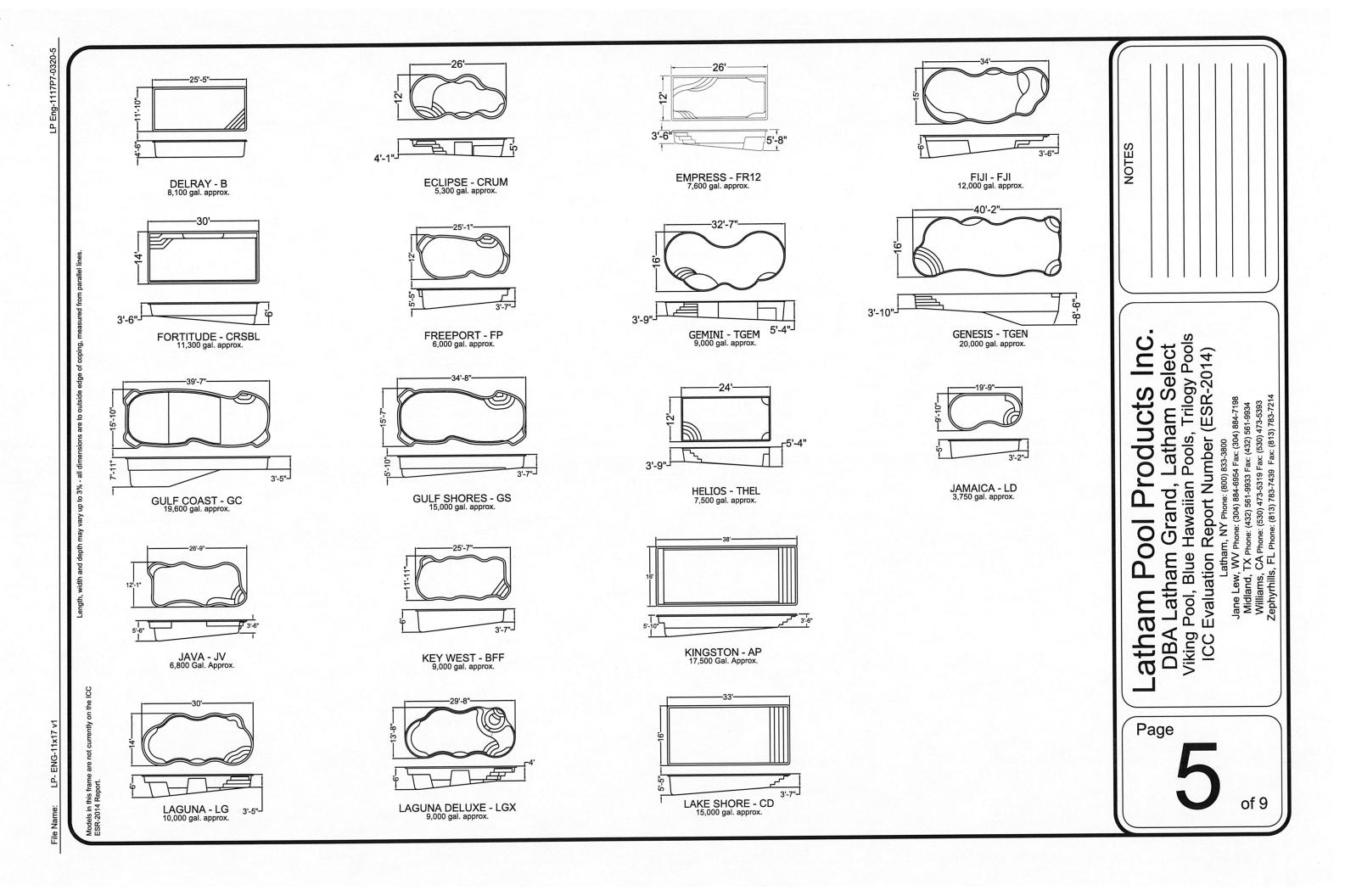
NOTES

atham Pool Products Inc.
DBA Latham Grand, Latham Select
Viking Pool, Blue Hawaiian Pools, Trilogy Pools
ICC Evaluation Report Number (ESR-2014)

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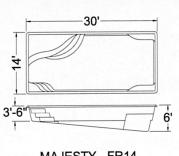


LP- ENG-11x17 v1





3'-6"

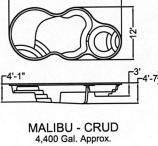


MAJESTY - FR14 11,200 gal. approx.

MONACO - AT 21,000 Gal. Approx.

OLYMPIA - FR16 15,250 gal. approx.

6'-6"

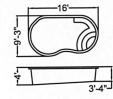


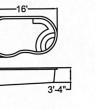
MONTEGO - MT 12,400 gal. approx.

-24'-1"

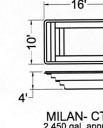
PICASSO - TPIC 10,000 gal. approx.

3'-9"

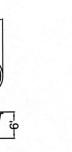




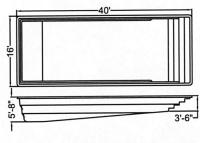
MAUI - MTK 2,300 gal. approx.



MILAN- CTL 2,450 gal. approx.

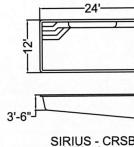


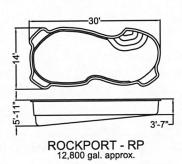
NEBULA - CRUL 8,000 gal. approx.



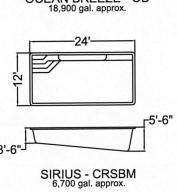
OCEAN BREEZE - OB 18,900 gal. approx.











Inc **Products** Pool atham

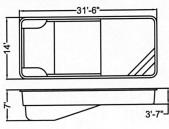
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NOTES

DBA Latham Grand, Latham Select
Viking Pool, Blue Hawaiian Pools, Trilogy Pools
ICC Evaluation Report Number (ESR-2014)
Latham, NY Phone: (800) 833-3800
Jane Lew, WV Phone: (300) 884-6954 Fax: (304) 884-7198
Midland, TX Phone: (330) 473-5319 Fax: (330) 473-5393
Zephyrhills, FL Phone: (813) 783-7214

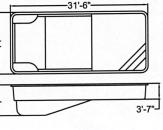
ST. LUCIA - CM 6,000 gal. approx. _{-3'-10"} SYNERGY - TSYN 18,000 gal. approx.

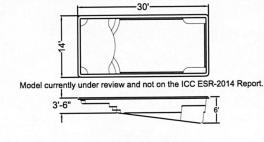
-40'-2"-



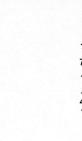
ST. THOMAS - L 13,700 gal. approx.

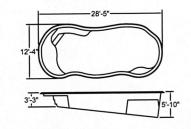
VALENCIA - ST 10,000 gal. approx.



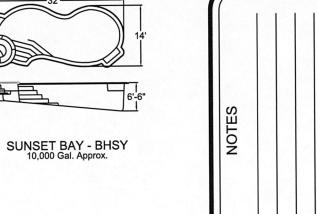


STARGAZE - RRT14 10,500 gal. approx.





VISTA ISLE - BHVI 8,000 Gal. Approx.



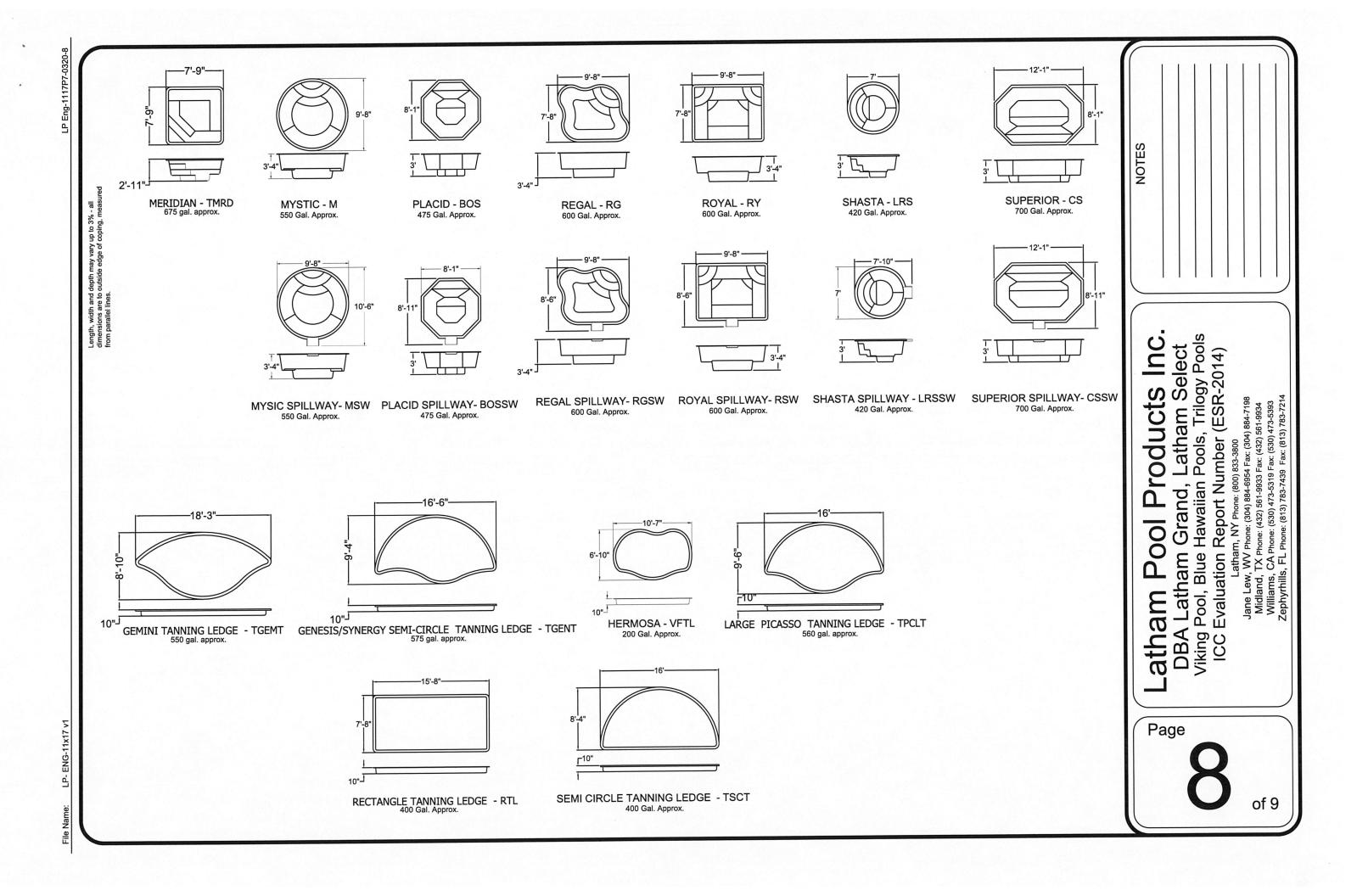
DBA Latham Grand, Latham Select Viking Pool, Blue Hawaiian Pools, Trilogy Pools ICC Evaluation Report Number (ESR-2014)

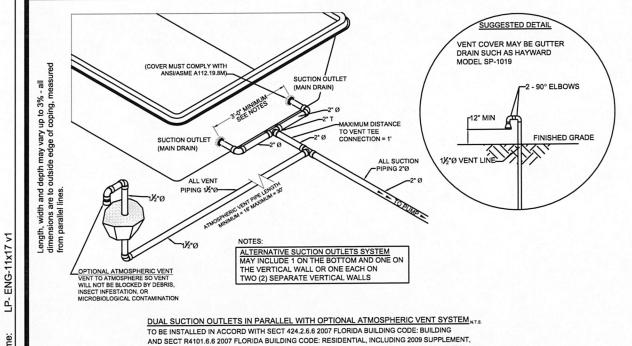
Latham, NY Phone: (800) 833-3800
Jane Lew, WV Phone: (304) 884-6954 Fax: (304) 884-7198
Midland, TX Phone: (432) 561-9933 Fax: (432) 561-9934
Williams, CA Phone: (530) 473-5319 Fax: (530) 473-5393
Zephyrhills, FL Phone: (813) 783-7214 **Products Inc** Pool

atham

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2010/2014 FLORIDA BUILDING CODE: BUILDING AND 2017 FLORIDA BUILDING CODE: RESIDENTIAL

2013 ANSI/APSP/ICC-7 Suction entrapment Avoidance

DEBRIS REMOVAL SYSTEM SUCTION OUTLETS IN SERIES

WATER LINE

FLOOR DRAIN

18" MIN 24" MAX

GENERAL NOTES

6. ATTACH PLACARD WHICH STATES THAT VENT IS A SWIMMING POOL SAFETY DEVICE AND SHOULD NOT BE TAMPERED WITH.
7. THE MAXIMUM VACUUM WITH ONE SUMP PLUGGED AND TO RELEASE A BODY ENTRAPMENT ON THE OTHER SUMP WILL NOT EXCEED 4.5 INCHES

8. MAXIMUM SUCTION PIPE VELOCITY SIX (6) FPS OR 59 GPM
9. AN APPROVED VACUUM RELEASE SYSTEM SUCH AS THE VAC-ALERT SVRS SYSTEM IS AN ALTERNATIVE TO THE OTHER SYSTEMS SHOWN.

1. THE DEBRIS REMOVAL SYSTEM IS TO BE INSTALLED IN ACCORDANCE WITH DRAIN MANUFACTURER'S RECOMMENDATIONS.
2. CONTRACTOR TO INSTALL VACUUM RELIEF BACKUP SYSTEM IN ACCORDANCE WITH SECTION 424.2.6.6 FBC-BUILDING
2007 AND SECTION R4101.6.6 FBC-RESIDENTIAL 2007, INCLUDING 2009 SUPPLEMENT AND 2017 FBC-BUILDING AND RESIDENTIAL.
3. ALL PIPING TO BE SCHEDULE 40 PVC BEARING NSF APPROVAL UNLESS OTHERWISE NOTED.
4. THE FLOOR DRAIN MEETS THE REQUIREMENTS OF ANSI/ASME 4112.19.8-2007 AND DRAIN COVERS MEET THE
REQUIREMENTS OF ANSI/ASME A112.19.8-2007 FOR ANTI-HAIR AND BODY ENTRAPMENT AND ANSI/ASME/AT 2013 STANDARD.

THIS DRAWING WILL SUPPLEMENT CONTRACTOR'S SPECIFICATION DRAWING ON FILE. FOR METHODS AND
MATERIALS OF CONSTRUCTION, REFER TO CONTRACTOR'S ENGINEERED AND SEALED SPECIFICATION DRAWING ON

(SUCTION OUTLET)

-ANTI-VORTEX

2ND DRAIN (SUCTION OUTLET)

2½"Ø OR EQUAL TO CIRCULATION LINE

(OPTIONAL) DEBRIS

CONTAINMENT CANISTER-

CIRCULATION LINE

-2 - 90° ELBOWS

VENT COVER MAY

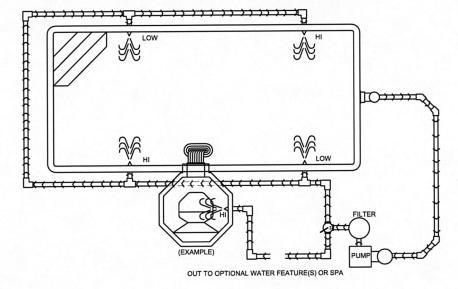
BE GUTTER DRAIN

1X"Ø VENT LINE-

ATMOSPHERIC VENT PIPE LENGTH MINIMUM = 16' MAXIMUM = 30'

OF MERCURY IN 3 SECONDS

SWIMMING POOL WITHOUT RECIRCULATION MAIN DRAINS



STANDARD NOTES:

1. USE 2" SCHEDULE 40 PIPE.
2. DO NOT USE 90 DEGREE ELBOWS ON SUCTION SIDE.
3. CHECK VALVES MAY BE NEEDED IF EQUIPMENT IS
MORE THAN 18" ABOVE WATTER LINE.
4. KEEP VALVES WITHIN 5" OF THE PUMP AND/OR FILTER.

LEGEND △ T-JOINT FIBER OPTIC LIGHT 3" MAIN DRAIN D >∰ 3-WAY VALVE RETURN >>>>> PLUMBING

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of 9

Reviewed by: Seal:

<u>nc</u> roducts Pool atham

NOTES

DBA Latham Grand, Latham Select Viking Pool, Blue Hawaiian Pools, Trilogy Pools ICC Evaluation Report Number (ESR-2014)
Latham, NY Phone: (800) 833-3800
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Williams, CA Phone: (530) 473-5319 Fax: (530) 473-5393
Zephyrhills, FL Phone: (813) 783-7439 Fax: (813) 783-7214

Effective Date: November 2019

This listing is subject to re-examination in one year.

www.icc-es-pmg.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council @

DIVISION: 13 00 00-SPECIAL CONSTRUCTION Section: 13 11 13-Below-Grade Swimming Pools

REPORT HOLDER:

LATHAM POOL PRODUCTS, INC. dba VIKING POOLS, BLUE HAWAIIAN POOLS, TRILOGY POOLS AND LIBERTY COMPOSITE POOLS www.Latham.com

EVALUATION SUBJECT:

VIKING, TRILOGY, BLUE HAWAIIAN AND LIBERTY FIBERGLASS SWIMMING POOL AND SPA SHELLS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012 & 2009 International Building Code³ (IBC)
- 2018, 2015, 2012 & 2009 International Residential Code[®] (IRC)
- 2018 & 2015 International Swimming Pool and Spa Code[®] (ISPSC)
- 2012 & 2009 International Plumbing Code® (IPC)
- 2018, 2015 and 2012 Uniform Swimming Pool, Spa & Hot Tub Code* (USPSHTC)
- 2019, 2016, 2013 AND 2010 California Residential Code[®] (CRC)
- 2017 City of Los Angeles Residential Code² (LARC)
- 2013 Abu Dhabi International Building Code (ADIBC)*

The ADIEC is based on the 2009 IBC, 2009 IBC cade sections referenced in this report are the same sections in the ADIBC.

Compliance with the following standards:

- ANSI/APSP/ICC 5-2011. Standard for Residential Inground Swimming Pools
- ANSI/APSP/ICC 3-2014, Standard for Permanently Installed Residential Spas and Swim Spas
- IAPMO/ANSI Z124.7-2013, Prefabricated Plastic Spa Shells
- AC274, ICC-ES Acceptance Criteria for In-ground Residential, Fiber-reinforced Plastic Swimming Pools and Permanently Installed Plastic Spas, dated December 2006 (editorially revised July 2017)

2.0 USES

The fiberglass pool and spa shells are for recreational use as swimming pools or spas in residential applications with water circulated through a filter in a closed system. The pools comply with ANSI/APSP/ICC-5 as Type O or Type I pools. The spas comply with ANSI/APSP/ICC-3 and

IAPMO/ANSI Z124.7.

3.0 DESCRIPTION

3.1 General:

The fiberglass pool and spa shells consist of one-piece fiberglass construction shop-formed over a mold. The material is minimum 1/4-Inch-thick (6.4 mm), fiberglassreinforced plastic (FRP), composed of isophtalic resin, vinylester resin, fiberglass, and ceramic (ceramic in Viking Pools only). The surface finish is a neopentyl glycol gel

The overall dimensions, depths and capacities are shown in Table 1 for pools. Table 2 for spas and Table 3 for models that are permitted to be installed up to 191/2 inches (495 mm) above ground.

Notice: The pool and spa shells are designed to remain full of water at all times. The shell may be damaged if the water level is allowed to drop below the skimmer. When appreciable drawdown is noticed or if it becomes necessary to drain the pool or spa, contact Viking Pools. LLC, or its dealers for instructions.

3.2 Aboveground Pools and Spas:

Models intended for installation up to 191/2 inches (495 mm) above ground, listed in Table 3, have vertical supports consisting of 1-inch-by-11/2-inch-by-36-inch-long (25 mm by 38 mm by 914 mm), Douglas fir, No. 2 wood members encapsulated in the FRP process at 41/2-foot (13372 mm) intervals.

4.0 INSTALLATION

4.1 General:

The swimming pool and spa shells must be permanently installed in-ground or, in the case of the models shown in Table 3, up to 191/2 inches (495 mm) above ground. All plumbing and electrical installations must comply with the relevant codes in effect at the construction site at the time of construction.

Subject to the code official's approval, the pool or spashells may be installed without a soil investigation by a registered design professional, provided none of the following conditions is encountered at the site:

- The existence of groundwater within the excavation, where the pool or spa floor will contact the soil at the time of installation.
- The existence of an uncompacted fill in contact with any portion of the pool or spa shell.
- The existence of any expansive-type solls.



MASTERTEMP®

HIGH PERFORMANCE HEATER

Fast, efficient and built to enhance your pool enjoyment.





BIG PERFORMANCE. SMALL FOOTPRINT.

Efficiency, fast heating and simplicity in a sleek, compact package.

When you want the soothing experience of warm water, the MasterTemp® High Performance Heater brings you the design features that deliver lower operating costs, easy operation and a long, dependable service life.

MasterTemp heaters are well-known for best-in-class energy efficiency and low emissions, even while heating your pool quickly. They feature an exceptionally compact design for such a high-performance heater, so they fit on smaller, less-intrusive equipment pads. Controls are intuitive and easy to use. MasterTemp heaters are also designed for super-quiet operation to help keep your poolside experience tranquil.



Economical and fast

Premix combustion technology for best-in-class efficiency and fast warm-ups; no long waits to enjoy your pool.



Enhanced design

Sleek, updated looks with easy-to-use controls.



Built to last

Tough, rustproof composite exterior weathers the elements.





MASTERTEMP®

HIGH PERFORMANCE HEATER

Make the move toward greater comfort and efficiency. Learn more from your Pentair dealer or visit **pentair.com**.



POOL SIZING			Heater Size					Heater Size			
Temperature Change/	Model 175	Model 200	Model 250/250HD	Model 300	Model 400/400HD	Model 175	Model 200	Model 250/250HD	Model 300	Model 400/400HD	
24 Hrs.		Pool Capacity in Gallons					Pool Surface Area in Sq. Ft. at 5.5' Depth				
5 .	85,210	97,383	121,729	146,075	194,766	2,069	2,364	2,955	3,546	4,727	
10	42,605	48,691	60,864	73,037	97,383	1,034	1,182	1,478	1,773	2,364	
15	28,403	32,461	40,576	48,692	64,922	690	788	985	1,182	1,576	
20	21,303	24,346	30,433	36,519	48,691	517	591	739	887	1,182	
25	17,042	19,477	24,346	29,216	38,953	414	473	591	710	945	
30	14,201	16,230	20,288	24,345	32,461	345	394	493	591	788	
35	12,173	13,912	17,390	20,868	27,824	296	338	423	507	675	
40	10,651	12,173	15,216	18,260	24,346	259	295	369	443	591	

^{*}ASME models available. See your Pentair representative for details.

SPA SIZING

				Spa	Volume (Gall	ions)			
Model	200	300	400	500	600	700	800	900	1,000
		Mi	nutes for 30	°F Temperat	ure Rise (He	ater Input in	1,000 BTU/H	IR)	
175	21	31	40	50	61	71	81	91	102
200	18	27	35	44	53	62	71	80	89
250/250HD	16	24	31	39	47	54	62	70	78
300	14	20	27	33	40	47	53	60	67
400/400HD	9	13	18	22	27	31	35	40	44

^{*}Note: The chart is based on a 30°F (16.6°C) temperature rise, discounting losses and only based on heat required to raise temperature in minutes. Two-year limited warranty. See warranty for details.





The MasterTemp High Performance Heater has earned the Eco Select* brand distinction as one of the greenest and most efficient choices from Pentair.

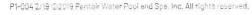
TRADEGRADE

The TradeGrade family of products is exclusively made for and sold by the world's most demanding pool professionals.

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POOL ALARM

MODEL PGRM - 2 MADE IN THE USA PBM INDUSTRIES, INC.

ASTM











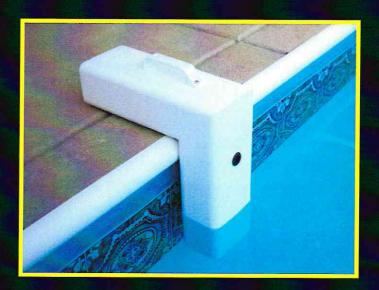


- Detects Intruders
- Sits On Deck
- Battery Powered
- Low Battery Indicator
- New Sensing Technology
- Easy To Use
- Completely Portable
- Automatic Reset
- Affordable Price
- In House Remote Receiver
- Red Reset/Sleep Key

POOLGUARD POOL ALARM

POOLGUARD/PBM INDUSTRIES, INC. has been manufacturing pool alarms, door alarms, and gate alarms since 1982. All Poolguard products are proudly Made in the USA. Poolguard Pool Alarms were tested and rated No. 1 by Good Housekeeping Magazine, and a leading Consumer Magazine. Poolguard Pool Alarms have been Tested and Certified by NSF International to the ASTM Standard Safety Specification for Residential Pool Alarms, ASTM F 2208.

See back for more details & information about the Poolguard In-Ground Pool Alarm, call us at 1-800-242-7163, or visit our website.



P.O. Box 658 • North Vernon, Indiana 47265

www.poolguard.com





MODEL PGRM-2

NEW WEATHERPROOF DESIGN
NEW RED RESET/SLEEP KEY
NEW SENSING TECHNOLOGY
NEW MICROPROCESSOR TECHNOLOGY

- The Poolguard Pool Alarm, once installed in the pool, cannot be deactivated; it is always in the alarm ready mode.
- Tamper Proof: Poolguard Pool Alarm will sound an alarm when removed from the pool.
- Sleep mode: when you would like to use your pool, simply remove the alarm from the pool and put it into sleep mode.
- Automatic Wake-up: The Poolguard Pool Alarm will automatically wake up and run a system test when installed into the pool.
- The Poolguard Pool Alarm comes with an in house remote receiver that has a range up to 200 ft., and comes with a 12 volt power supply.
- The Poolguard poolside alarm works with a 9-volt battery (not included), with a battery life of approximately one year.

- Audible low battery indicator at the poolside alarm is also indicated by the in house remote receiver.
- New sensing technology provides less chance of false alarms due to wind, rain or small objects such as sticks or toys entering the water.
- Works with pools up to 20' x 40' (800 sq. ft.).
- The Poolguard Pool Alarm can be used with a solar blanket.
- Most reliable, advanced, and affordable alarm available.
- Poolguard Pool Alarms are designed to detect intrusions similar to a one year old child weighing 20 pounds and up.

3 Year Warranty - - - No.1 In Customer Service 1-800-242-7163



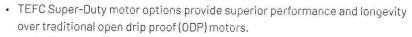


SUPERFLO®

HIGH PERFORMANCE PUMP WITH TEFC SUPER-DUTY MOTOR

Rugged and versatile, with a TEFC Super-Duty motor for longer service life.

The SuperFlo pump features super-quiet operation and more than 40 years of innovative hydraulic engineering, and now includes a single-phase totally enclosed fan-cooled (TEFC) Super-Duty motor option. As a result, the SuperFlo moves water more effectively with less wear and tear. This means longer life for a higher return on your pump investment.



- · Innovative hydraulic design and thick-walled body parts deliver super-quiet operation.
- When outfitting a new pool or looking for a superior replacement for a Hayward® Super Pump®,





SUPERFLO® HIGH PERFORMANCE PUMP

Strong, dependable performance.

The SuperFlo pump, featuring a TEFC Super-Duty motor, meets all the criteria for a superior pool, spa or water feature pump. SuperFlo is built with innovative materials that will stand up to the most demanding installations and conditions. Meanwhile, the TEFC Super-Duty motor's design prevents water, dust and other contaminants from entering and affecting the motor's operation and longevity.



TradeGrade advantages

Longer warranties, exclusive rebates, expert advice and service.

TEFC Super-Duty Motor

Heavy-duty commercial grade at a consumer price.

Cam and Ramp™ Lid

See-through lid permits easy inspection of strainer basket and locks in place with a quarter-turn.

Self-priming

For quicker, easier startup.

Performance and pressure tested

To ensure superior quality.

115-volt or 230-volt models available

Works with available power sources—no new wiring required.

Two-Year Warranty

Learn more about the exclusive warranty by visiting Pentair.com for further details.

PERFORMANCE CURVES



Model number	HP	Speed	Curve Key
348144	1 TEFC	Single	Н
348145	1-1/2 TEFC	Single	l l
348146	2 TEFC	Single	J

Pumps and replacement motors that are single speed and one (1) Total HP or greater cannot be sold, offered for sale, or installed in a residential pool for filtration use in California, Title 20 CCR sections 1601–1609.



TRADEGRADE

The TradeGrade family of products is exclusively made for and sold by the world's most demanding pool professionals.

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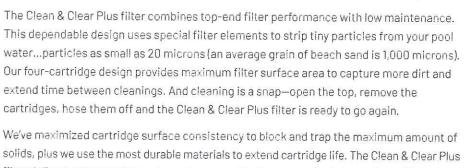


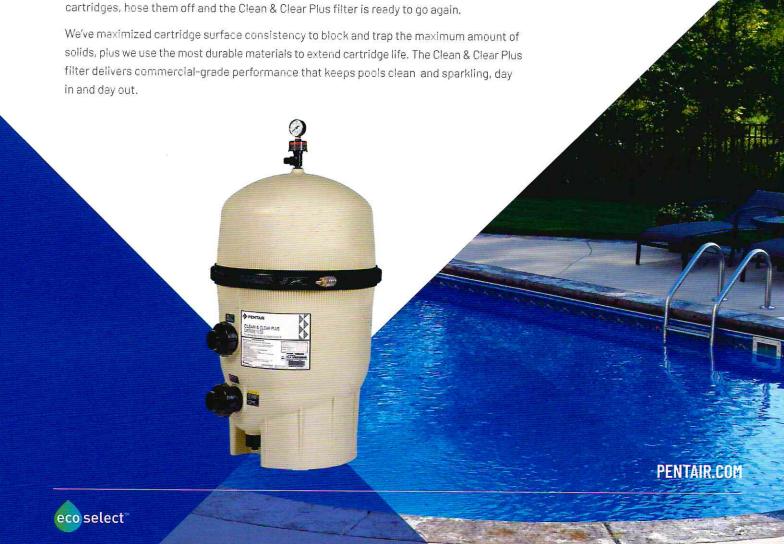


CLEAN & CLEAR® PLUS

CARTRIDGE FILTER

Crystal clear water the easy way.







CLEAR & CLEAR® PLUS CARTRIDGE FILTER

Four cartridges in a compact design

Clean & Clear Plus filters contain four polyester cartridges that hold enormous amounts of dirt, yet are easier to clean. The fiberglass-reinforced tank halves are secured with an innovative clamp ring—just loosen the ring and remove the top half for easy cartridge access and rinsing. Filter maintenance doesn't get any easier.



For maximum flow and faster water cleaning.

Easy access

Clamp ring makes it quick and easy to remove and rinse cartridges as well as provides access to internal parts to speed service routines.

KEY FEATURES

Single-piece base and tank

Constructed of fiberglass-reinforced polypropylene for strength, corrosion resistance and stability for years of dependable service.

Four-cartridge design

Traps more dirt and extends time between cleanings.

1-1/2" drain

Easy to access and located to ensure complete draining, making winterization fast and simple.

Internal air bleed

Continuous internal air bleed helps prevent air build-up to keep the filter operating at peak performance.

Model Filter Area		Vertical	Filter	Flow Rate GPM ²	Turnover	Capacity-Res	. (Gallons)
Number	Sq. Ft.	Clearance*	Diameter	Residential	8 hrs.	10 hrs.	12 hrs.
CCP240	240	56"	21.5"	90	43,200	54,000	64,800
CCP3201	320	62"	21.5"	120	57,600	72,000	86,400
CCP4201	420	68"	21.5"	150	72,000	90,000	108,000
CCP5201	520	74"	21.5"	150	72,000	90,000	108,000

NSF Certified

²Residential rate .375 GPM per sq. ft. of filter area





The Clean & Clear Plus Cartridge Filter has earned the Eco Select® brand distinction as one of the greenest and most efficient choices from Pentair.

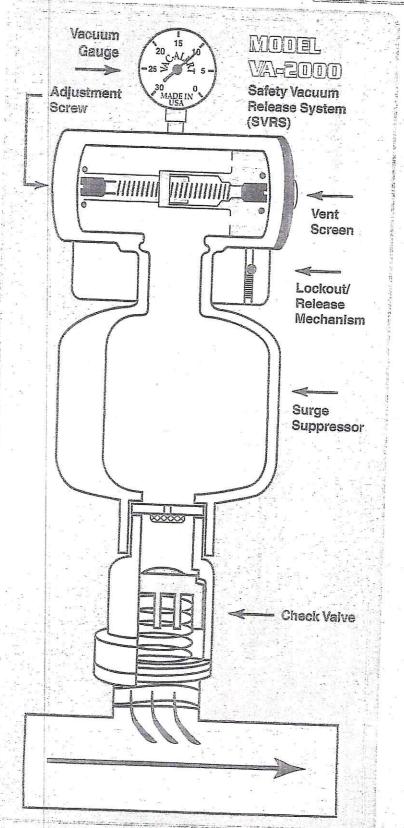
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VAC-ALERT™ INDUSTRIES,LLC
FORT PIERCE, FLORIDA
WWW.vac-alert.com

Vac-Alert™ Model VA-2000 SVRS Unit Reacts In Less Than A Second To Quickly Release Dangerous Pump Suction Vacuum.

A Totally Mechanical, Non-Electric Safety System, The VA-2000 SVRS is Easy To Install, Adjust And Test.

Vac-Alert's Fail Safe Design Is Manufactured With Only Engineered Plastics And Type 316 Stainless Steel For Long-Life And Reliable Service.

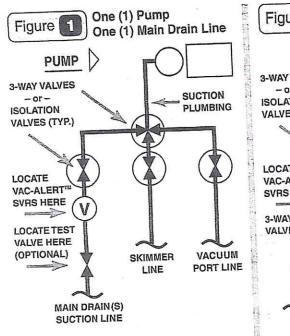
The VA-2000 SVRS Provides A Critical Layer Of Protection Against Body Or Limb Drain Suction Entrapment.

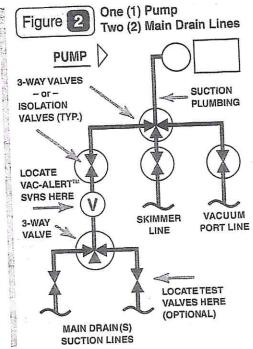
Tests Conducted By Independent, Third Party Laboratory Demonstrate That Vac-Alert's Model VA-2000 Meets Or Exceeds The Performance Requirements Of ASME/ANSI A112.19.17 – Manufactured Safety Vacuum Release Systems.

The VA-2000 SVRS is Backed By A 3-Year Limited Manufacturer's Warranty.

FOR SALES AND SERVICE CONTACT:

VAC-ALERT™ SAFETY VACUUM RELEASE SYSTEM (SVRS) PLUMBING AND INSTALLATION DIAGRAMS





A: Always Locate The Vac-Alert ™ SVRS On The Main Drain Suction Line. SVRS Unit Must Be Mounted In The Vertical Position.

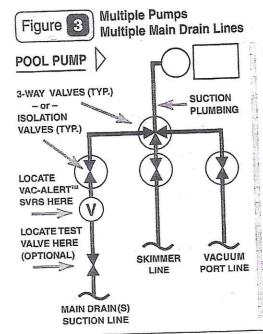
B: Use A Fast-Acting, Full-Flow, Full-Port, Ball Valve Or Butterfly Valve As A Test Valve. A Test Valve Is An Optional Alternative To A Pole-Mounted Test Mat. Each Vac-AlertTM SVRS Unit Must Be Tested Three (3) Times To Insure Proper Adjustment And Operation.

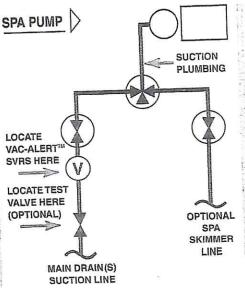
C: For Multiple Pump Systems, One (1) Vac-Alert SYRS Unit Is Required For Each Pump Plumbed To A Dedicated Main Drain Suction Line.

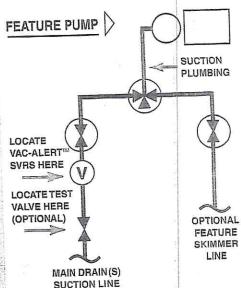
D: The Vac-Alert[™] SVRS Unit Is Rated For Suction Vacuum Levels Up To 18 Inches Of Hg (Mercury). For Vacuum Levels Above 18 Inches Of Hg, Either Throttle The Return Side Of The Pump To Produce A Running Vacuum Less Than 18 Inches Of Hg, Or Call Vac-Alert™ For Further Instruction.

E: <u>Do Not</u> Install A Check Valve In A Main Drain(S) Suction Line Between The Vac-Alert™ SVRS And The Main Drain.

F: A Vac-Alert™ SVRS Unit May Also Be Used In A Vacuum Port Line To Protect Against Body Or Limb Entrapment







FLO\	NTHRU	SCHE	DULE 4	O PVC F	IPE
	VELOC	ITY - FEE	T PER SI	COND	
PIPE SIZE	6 ^{FPS}	7 ^{FPS}	8 ^{FPS}	9 FPS	10 ^{FPS}
1"	16 GPM	18 GPM	21 GPM	23 GPM	26 GPM
1.5"	37 GPM	43 GPM	50 GPM	56 GPM	62 GPM
2"	62 GPM	72 GPM	82 GPM	92 GPM	103 GPM
2.5"	88 GPM	102 GPM	117 GPM	131 GPM	146 GPM
3"	136 GPM	159 GPM	181 GPM	203 GPM	227 GPM



iCHLOR®

SALT CHLORINE GENERATOR

Smart technology for healthier, purer pool water.





ORDINARY TABLE SALT. EXTRAORDINARY TECHNOLOGY.

The chemistry behind the iChlor® Salt Chlorine Generator makes it so simple to use—just add salt to generate all the chlorine your pool needs. Our smart technology provides built-in intelligence for unmatched convenience and control. Touchpad controls enable fast checking of salt levels, chlorine output and cell life. Plus, iChlor makes it easy to set and adjust chlorine levels, reducing the need for repeated testing and upkeep.



ICHLOR WITH SMARTSENSE™ DETECTION

Our advanced features deliver consistent operation and important safequards to protect your family.



SmartSense Cover Detection*

Reduces chlorine output when automatic pool cover is closed.



iChlor with SmartSense Detection



SmartSense Flow Detection

Assesses status of the IntelliFlo* Pump before generating chlorine.

^{*} Only available on iChlor 30 (1.0) models

[†] Requires separately purchased iChlor Cover Kit. Please refer to your pool cover manufacturer for additional instructions

UNMATCHED CONVENIENCE

Keep your pool water clear and inviting with electrolytic chlorine generation—the easiest, most effective and convenient way to maintain your pool. You get the same sanitation performance as manual chlorine addition without all the drawbacks.



No more buying, carrying, storing or handling chlorine.



No more spills, odor, stinging eyes or irritated skin.



No more bleached-out bathing suits.

EFFORTLESS CHLORINATION

Simply adjust the output to achieve the precise level of chlorine. iChlor does the rest, automatically producing a steady stream of pure chlorine for softer, silkier pool water that's free of bacteria and other contaminants. What could be easier?



Once the chlorine has finished purifying the pool of contaminants, it reverts back into dissolved salt and the cycle repeats.



Easy setup

Adjust your sanitizing level in 1% increments from 1-100%. Push the button, and you're done.

Smart design

Automatic reverse cycling helps prevent scale build-up. And, unlike its competitors, the electronics are isolated in the cell and away from high-heat components for more dependable performance.

Two model sizes

Choose from two model sizes to meet your pool chlorination needs. Sizing is based on pool capacity in gallons:

Available Models

- iChlor 15 (0.6) for pools up to 15,000 gallons.
- iChlor 30 (1.0) for pools up to 30,000 gallons.

Fact center

- · Indoor/outdoor, vertical/horizontal installation.
- 115/230V, 50/60Hz power center.

iCHLOR® SALT CHLORINE GENERATOR

AUTOMATION READY

For ultimate convenience, the iChlor Salt Chlorine Generator seamlessly interfaces with Pentair Automation Systems.

ADDED CONVENIENCE AND CONTROL

With its user-friendly controls and displays, iChlor lets you make adjustments simply by pushing a button. When using with automation and the ScreenLogic2® Interface, control it from anywhere at any time via your computer, tablet or smartphone. Now also compatible with the Apple Watch® wrist-wearable device for added convenience and with the Amazon Echo® for hands-free voice control.

Find out why the iChlor Salt Chlorine Generator is the best chlorinator for your pool at pentairpool.com/ichlor.







The iChlor Salt Chlorine Generator has earned the Eco Select' brand distinction as one of the greenest and most efficient choices from Pentair.

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