

job 1811

To: Bob Thirstrup

From: Dammon Engineering  
Chuck Dammon / Aaron Champagne

Date: 1/31/07

Subject: New buildings for Slidell Athletic Club.

Please review and comment.

3 pages including this cover.

Leslie  
541-523-0231

Tiger builder  
1350  
110/220  
Pump  
1/2" hp Self Primer  
Leslie

**Project SLIDELL ATHLETIC CLUB HVAC Calculations****Wed Feb 28 10:32:34 CST 2007**

There is no calculation for North & Shaded Glass

There is no calculation for NorthEast and NorthWest Glass

The Btuh Gain for 12 SqFt of East and West Double Pane Glass = 1140

There is no calculation for SouthEast and SouthWest Glass

There is no calculation for South Glass

There is no calculation for SkyLights

There is no calculation for Windows in Doors

The Btuh Gain for 108 SqFt of Wood R-13 & 1/2" Gypsum Wall Number 1 = 248.4

The Btuh Gain for 108 SqFt of Wood R-13 & 1/2" Gypsum Wall Number 2 = 248.4

The Btuh Gain for 160 SqFt of Wood R-13 & 1/2" Gypsum Wall Number 3 = 368

The Btuh Gain for 160 SqFt of Wood R-13 & 1/2" Gypsum Wall Number 4 = 368

The Btuh Gain for 252 SqFt of Roof Only 5.25" - 6.5" R-19; Ceiling Number 1 = 1310.4

There is no calculation for Ceiling Number 2

There is no calculation for Floor Number 1

There is no calculation for Floor Number 2

The Btuh Gain for 2 People = 20

The Btuh Gain for Motor 3 HP = 10500

There is no calculation for Ducts Out of Conditioned Spaces

The Btuh Gain for 252 SqFt of Area Lighting in a Retail Store = 1008

The wattage for 1 Gallon Coffee Machines = 470

There is no calculation for Electric Food Warmers

There is no calculation for Gas Food Warmers

The wattage for 3 SqFt of Electric Fry Kettle = 4200

There is no calculation for Gas Fry Kettle

The wattage for 3 SqFt of Electric Griddle = 4200

There is no calculation for Gas Griddle

There is no calculation for Hair Dryer Helmets

There is no calculation for 4-Slice Toaster

There is no calculation for other appliances of known wattages

There is no calculation for Outside Fresh Air #1

There is no calculation for Outside Fresh Air #2

There is no calculation for Outside Fresh Air #3

*The Kitchen Outside Fresh Air #4 = 30 cfm*

The Btuh Gain for Outside Fresh Air #4 = 900

There is no calculation for Outside Fresh Air #5

There is no calculation for Outside Fresh Air #6

*The Total Outside Fresh Air CFM = 30  
This is in accordance with International Mechanical Code 2003*

The Total BTUh Gain = 46269.2

The Total Tons of HVAC needed = 3.855766666666667

**Dammon Engineering Inc.**

1095 Florida Ave.  
Slidell, LA 70458  
(985) 649-5832  
Fax: (985) 641-5950

**FAX COVER SHEET**

FAX NUMBER TRANSMITTED TO: 641-9897

TO: Bob Thirstrup

FROM: Jennie Tiffany

CLIENT/MATTER: \_\_\_\_\_

REFERENCE: Slidell Athletic Club

DATE: Feb. 28, 2007 NO. OF PAGES INCLUDING COVER SHEET: 3

COMMENTS:

Rest Rooms:  
- Do they have open ceilings? rafters  
- Do you want electric heaters - NO

Snack Shack:

Electric or gas grill and fryer?  
- Are you having a garbage disposal? yes  
- Are you having a dishwasher? paper or porcelain plates?  
- Is the shack being wired for alarm system? NO  
- Snack shack Alc - would require window unit and sliding window over countertop; is this something you want to pursue? If not would you want fans? Advise Accordingly.

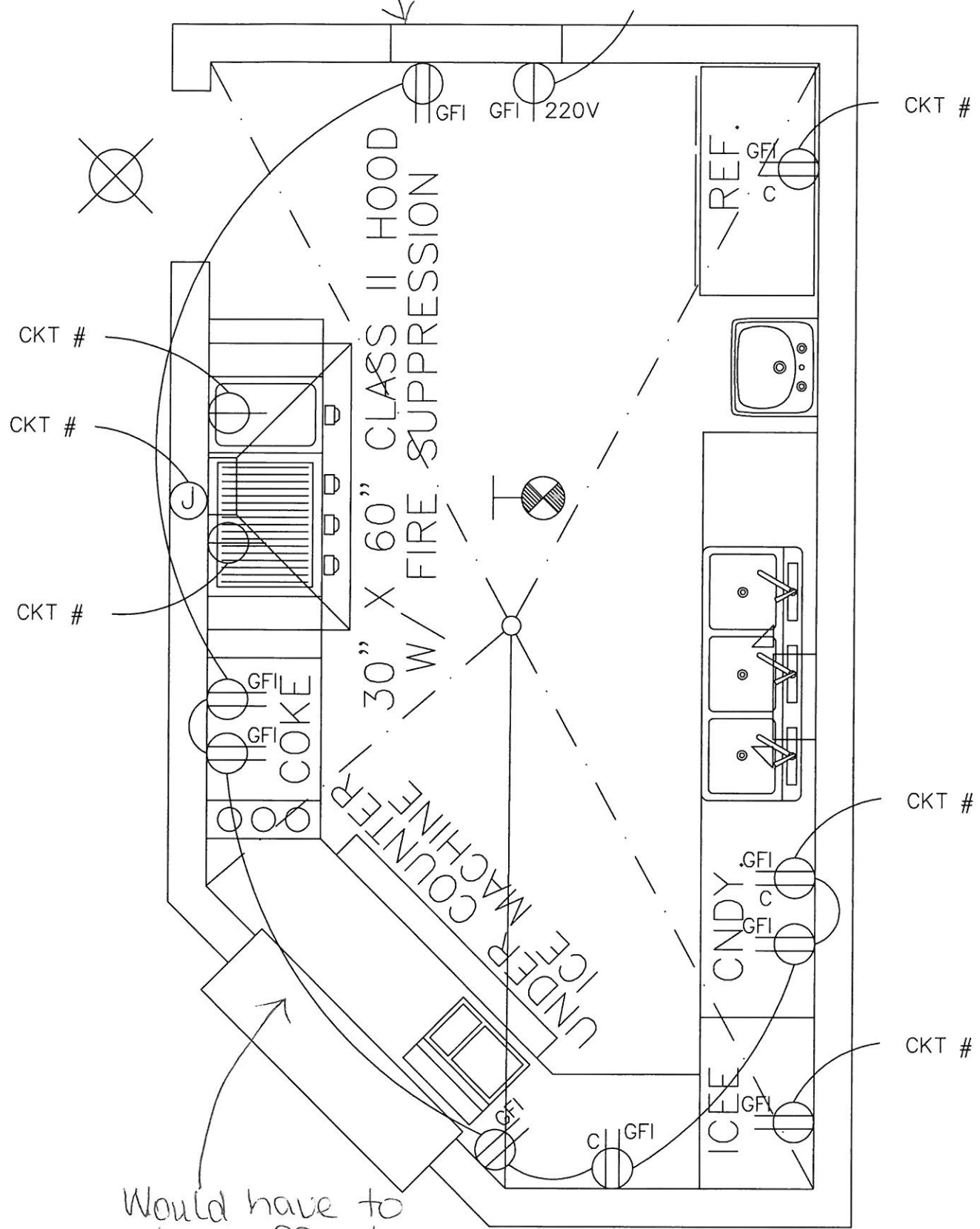
(see Diagram)

IF YOU EXPERIENCE ANY PROBLEMS RECEIVING THIS FAX, PLEASE CALL (985) 649-5832, OR FAX (985) 641-5950

Thanks, Jennie

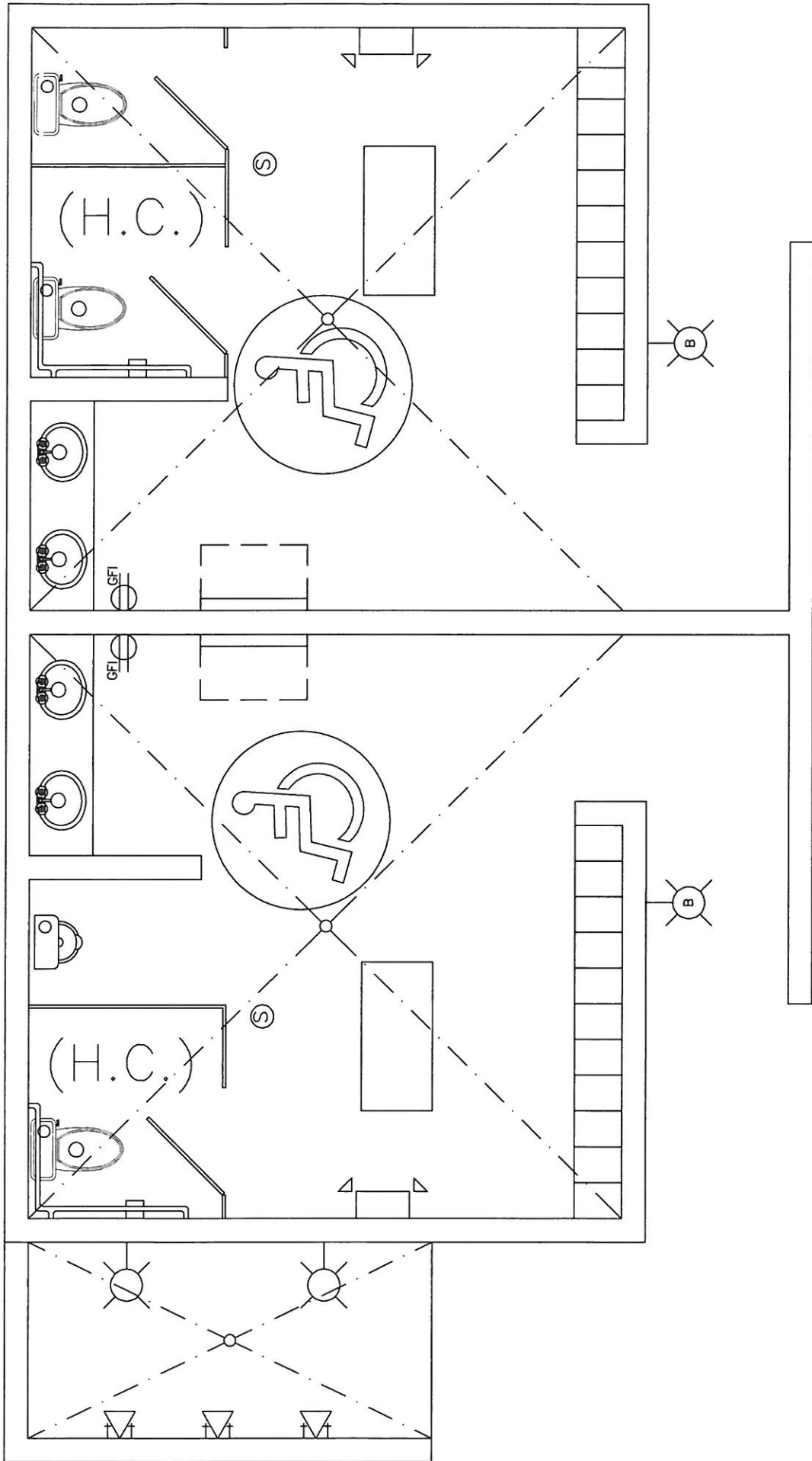
Window & unit

CKT #



Would have to close off w/ sliding window if using ALC.

# POWER PLAN



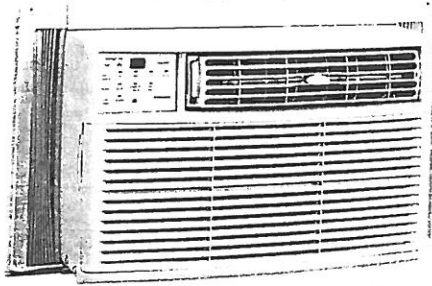
POWER PLAN

NEW STUFF!

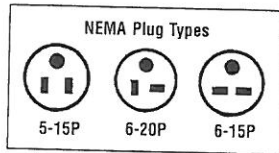
**A/C & Refrigeration**  
Room Air Conditioners

Order today! phone | fax | visit | [www.grainger.com](http://www.grainger.com)

**WINDOW ROOM AIR CONDITIONERS**



No. 6KL18



**FRIGIDAIRE LIMITED WARRANTY**

Warranty handled on site for 1 year. 5 year warranty on sealed system. 1 year on all other parts. NOTE: Certain commercial installations may void manufacturer's warranty. Text of warranty available on request. See "Manufacturer's Warranties" on page opposite inside back cover.

**Room Air Standard Features**

- Now with Electronic Controls and Remote (except Nos. 4YG89 and 6KL17)
- Fresh air/exhaust vent
- 3 fan/cool speeds
- 4-way air direction
- Pleated, quick-mount installation kit included
- Easy to clean, rigid, tilt-out air filter
- Off-white color

**Compact**

- Ideal for smaller rooms; easy to install, operate and service
- Fits windows 23" to 30" wide; minimum 14" opening height
- Dimensions: 12 1/4"H x 19"W x 15 1/4"D w/o front; 16 1/4" with front, No. 6KL17 has a depth of 19 1/4"

**Mid-Size**

- Higher cooling capacity added to the attractive styling, comfort and convenience of the compact size
- Slide out chassis
- Fits windows 28" to 41" wide; minimum 17 1/2" opening height
- Dimensions: 15"H x 24"W x 22"D w/o front; 24"D with front

**Full Size**

- Large cooling capacity to cover larger applications
- Slide out chassis
- Heat/Cool unit offers all-season comfort
- Fits windows from 32" to 43" wide; minimum 20 1/2" opening height
- Dimensions: 18 1/4"H x 26 1/2"W x 25 1/4"D w/o front; 27 1/4"D with front

**Whisper Cool Design**

Every model provides the optimum in quiet operation, thanks to an exceptionally smooth-running compressor, a well-balanced fan motor, and blades that are specially designed to whisper as they cool.

**COMPACT WINDOW ROOM AIR CONDITIONERS**

Type	BtuH	Volts	EER	Amps	Watts	Dehum Pts./Hr.	High CFM	NEMA Plug Config.	Dimensions (In.) (H x W x D)	Frigidaire Model	Stock No.	List	Each	Shpg. Wt.
Cool	5200	115	9.0	5.5	575	1.3	175	5-15P	12 1/4 x 19 x 15 1/4	FAC053J7A	4YG89†	\$332.33	\$199.00	59.0
Cool	5950	115	9.0	6.0	661	1.5	175	5-15P	12 1/4 x 19 x 15 1/4	FAC065J7A	4YG90†	425.85	255.00	66.0
Cool	8000	115	9.5	7.5	845	2.1	250	5-15P	12 1/4 x 19 x 15 1/4	FAC085J7A	4YG91†	459.25	283.00	67.0
Cool	9950	115	9.8	9.7	1015	3.5	265	5-15P	12 1/4 x 19 x 19 1/4	FAC103JK1A	6KL17*	549.43	340.75	74.0

**MID-SIZE WINDOW ROOM AIR CONDITIONERS**

Type	BtuH	Volts	EER	Amps	Watts	Dehum Pts./Hr.	High CFM	NEMA Plug Config.	Dimensions (In.) (H x W x D)	Frigidaire Model	Stock No.	List	Each	Shpg. Wt.
Cool	10,000	115	9.8	9.4	1020	3.0	275	5-15P	15 x 24 x 21 1/2	FAL105K1V	6KL18	\$609.55	\$378.00	96.0
Cool	12,000	115	9.8	11.2	1225	3.8	270	5-15P	15 x 24 x 21 1/2	FAL125K1V	6KL19	743.15	460.75	102.0

**FULL SIZE WINDOW ROOM AIR CONDITIONERS**

Type	BtuH	Volts	EER	Amps	Watts	Dehum Pts./Hr.	High CFM	NEMA Plug Config.	Dimensions (In.) (H x W x D)	Frigidaire Model	Stock No.	List	Each	Shpg. Wt.
Cool	15,000	115	10.7	12.0	1,405	3.6	485	5-15P	18 1/2 x 26 1/2 x 25 1/4	FAS155K1V	6KL20 **	\$850.03	\$527.00	133.0
Cool	18,000/17,800	230/208	9.7	8.5/9.0	1,855/1,815	5.5	480	6-15P	18 1/2 x 26 1/2 x 25 1/4	FAS185J2A	4YH08	966.93	599.27	156.0
Cool	22,000/21,600	230/208	8.5	11.5/12.5	2,590/2,550	6.5	505	6-20P	18 1/2 x 26 1/2 x 25 1/4	FAS225J2A	4YH10	1143.95	708.98	160.0
Cool	25,000/24,700	230/208	8.7	12.5/13.8	2,875/2,840	8.5	505	6-20P	18 1/2 x 26 1/2 x 25 1/4	FAS255J2A	4YH11	1227.45	760.73	165.0
Cool	28,500/28,000	230/208	8.5	15.0/16.5	3,365/3,300	8.5	505	6-30P	18 1/2 x 26 1/2 x 25 1/4	FAS295J2A	4YH12	1477.95	819.72	172.0
Cool Heat	13,000/17,800 13,000/10,600	230/208	9.7	8.5/9.0 18.8/17.2	1,860/1,840 4,250/3,450	5.3	560	6-30P	18 1/2 x 26 1/2 x 25 1/4	FAV18EJ2A	4YH09	1210.75	750.38	167.0

(\*) Nos. 4YG89 and 6KL17 have no electronics or remote. (\*\*) No. 6KL20 carries the energy star rating.

**ROOM AIR BtuH SELECTION GUIDE**

Square Ft.	Occupied Space Above Ceiling	Insulated Ceiling Under Attic	Non-Insulated Ceiling	Square Ft.	Occupied Space Above Ceiling	Insulated Ceiling Under Attic	Non-Insulated Ceiling
200	5,000-5,500	6,000-6,500	7,500-8,000	800	12,000-13,000	14,000-15,000	19,500-20,000
400	7,500-8,000	8,500-9,500	11,500-12,500	1100	15,000-16,500	17,500-19,000	25,000-26,500
600	9,500-10,500	11,000-12,000	15,500-16,500.	1300	17,000-19,000	20,000-21,500	30,500-32,500

(\*) Limited availability. Contact your local Grainger branch.

HVAC  
Plumbing & Power



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[Store Rating](#)

**Electri-Chef 32 Inch Electric Chef Single Control Table Top Grill**

Item 1530038

**Price \$2,935.00**

Quantity 1

*Please see full description below...*

Usually ships within 1-2 days.

Shipping for this item is \$0.00

Currently there are no reviews for this product. Share your opinion with others, be the first to [write a review](#).

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**Electri-Chef 32 Inch Electric Chef Single Control Table Top Grill**

Single control Table Top electric grill these high quality electric grills are perfect for apartments, homes,condominiums and multi-family homes. All stainless stael construction with easy-to-use adjustable controls that provides grilling temperatures from 180 to 600. Clean electric cooking with 448 square inches of grilling surface (14 inch x 32 inch). Requires 208/220 volts ac 30 amps single phase dedicated branch circuit.



# STAR-MAX™ 10 lb. ELECTRIC FRYER Model 510FD

### Features/Benefits:

- ★ Star-Max™ 10 lb. electric fryer offers excellent frying flexibility for any type of menu item sealing in the flavor.
- ★ Compact fryer requires only 11" of counterspace and operates on a 120 volts.
- ★ One-piece 10 lb. lift-out nickel plated steel kettle is standard for easy straining of oils.
- ★ Two large nickel-plated steel mesh side hanging baskets (3-1/2"W x 4-5/8"D x 8-1/2"L) provide continuous flow of product during peak periods.
- ★ Immersion type tubular heating elements provide even heat distribution and swing up making cleaning a snap.
- ★ Snap-action thermostat ranges from 200°F to 375°F and provides quick response to temperature change.
- ★ Hi-limit on-off switch and indicator light provides safe and easy operation.
- ★ All stainless steel construction for maintenance free operation.
- ★ Adjustable legs to match the height of other Star-Max™ equipment in your line.
- ★ Accessory full basket (7-1/2"W x 4"D x 8-1/2"L) available.

### Applications:

Star-Max™ 10 lb. 120V compact fryer plugs in anywhere. Perfect for small foodservice operations, rental facilities, snack bars and other foodservice operations. No matter what the menu items; onion rings, fries, chicken or fish, Star-Max™ electric fryer cooks food sealing in the flavor.

### Quality Construction:

Star's electric fryer features all stainless steel construction with black polycarbonate trim, with an adjustable hi-limit safety thermostat. A one-piece nickel plated steel lift-out kettle with tubular two-position swing-up element. Unit supplied with two side mounted nickel plated baskets. Fryer is standard 120V with 6' lead-in cord and plug.

### Warranty:

Star-Max™ Electric Fryer is covered by Star's one year parts and labor warranty.



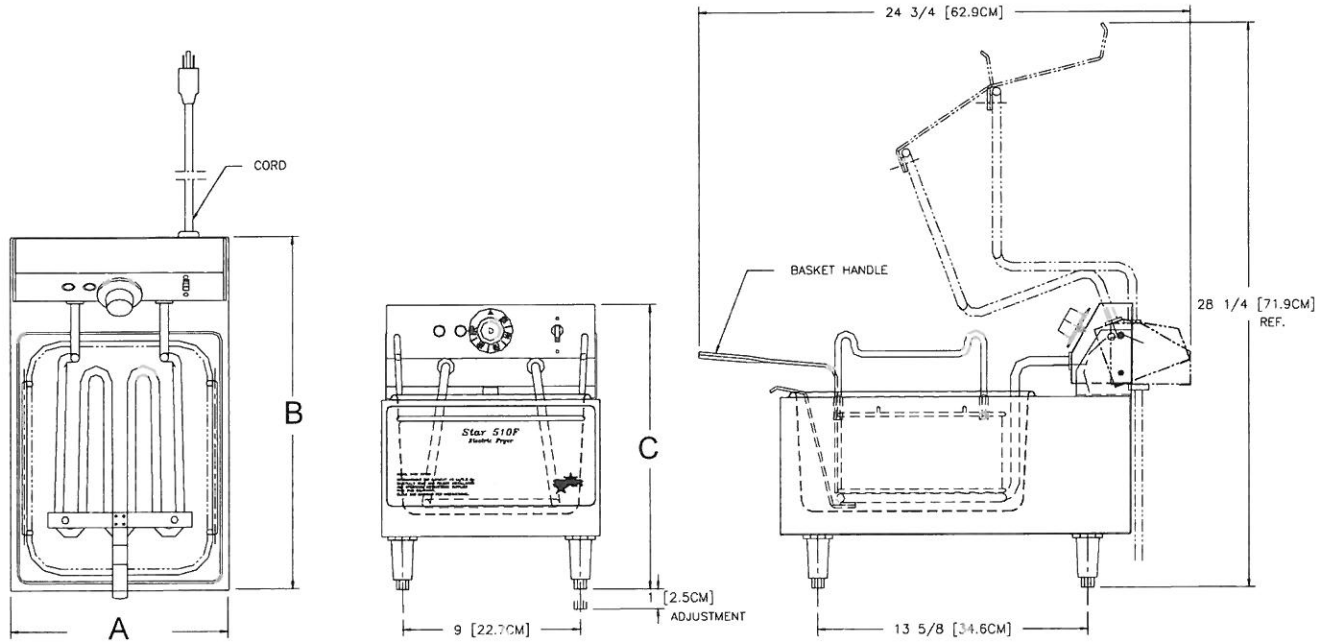
Model 510FD



Star-Max™ 10lb. Electric Fryer



### STAR-MAX™ 10 lb. ELECTRIC FRYER Model 510FD



#### Performance Data

Model No.	Fat Capacity	Pre-Heat to 350°F (177°C)	Pounds of French Fries Per Hour	Watts Per Hour To Maintain 350° (177°C)
510FD	10 lbs.	9 Minutes	10 lbs.	450

#### Dimensions & Weight

Model No.	Overall Dimensions			Fat Container			Cooking Surface Height	Approximate Weight	
	(A)	(B)	(C)	Width	Depth	Height		Installed lbs. (kg)	Shipping lbs. (kg)
	Width Inches (cm)	Depth Inches (cm)	Height Inches (cm)	Inches (cm)	Inches (cm)	Inches (cm)			
510FD	11 (28.0)	17-5/8 (34.7)	14-1/4 (36.1)	9 (23.0)	11 (28.0)	6 (15.2)	10 (25.4)	20 (9.0)	25 (11.3)

#### Electrical Data

Model No.	Rated Wattage	Nominal Amps	NEMA Plug
510FD	1800	15	5-15P

#### Typical Specifications

A 200°F- 375°F (93°C - 191°C) adjustable thermostat and a hi-limit safety thermostat are provided. A separate on-off switch is standard. A one piece stainless steel lift-out 10 lb. (4.5 kg) capacity kettle is provided. Unit has a tubular, two position, swing-up element with a rated wattage of 1800 watts on 120 volts. Two side mounted nickel plated baskets are provided as standard. Black plastic adjustable legs are standard. Comes complete with a 6 ft. (182.9 cm) lead-in cord and NEMA 5-15P. (NEMA #5-20P, 120V, 20A on Canadian versions) Unit carries approval of Underwriters Laboratories, C-UL, and National Sanitation Foundation. Printed in the U.S.A.

Star Manufacturing International Inc. - 10 Sunnen Drive - P.O. Box 430129 - St. Louis, MO 63143-3800

Phone: (800) 264-7827 - FAX: (800) 264-6666 - www.star-mfg.com



### Star Max Electric Fryer 10lb

FREE SHIPPING STA-510FD Compact fryer requires only 11" of counter space and operates on a 120 volts  
Onepiece 10lb Liftout nickel plated steel kettle is standard for easy straining of oils Immersion type tubular  
heating elements provide even heat distribution and swing up making cleaning a snap Height 14" Width 11"  
Depth 18" RESTAURANT SUPPLY Star Star Manufacturing Star Maxand#153; Fryer Electric Countertop Single  
10 lb Star 510FD Electric Fryer Star Max Counter 10lb Single Pot Twin Basket Electric Fryer 10 lb 120V Electric  
Countertop Deep Fryer Twin Baskets 10LB ELECTRIC FRYER 120 VOLT Fryer 10 Lb Single Pot Countertop  
Unit 120 Volt Star 510FD 10lb Electric Fryer Star Maxand#153; Fryer Electric Countertop Single 10 lb Star Max  
Fryer Electric Countertop 10 lb 1 Fry PotTwin Baskets 120 V Free Shipping on this Item Star 510FD All Purpose  
Electric Fryer Star Max Counter 10lb Single Pot Twin Basket Electric FryerMore Available InsideBy Star  
Manufacturing Star Fryer 10 lb capacity electric counter unit 510FD STR510FD 8E 510FD 120V 712500501  
510FD 126 510FD 062 510FD

Part #: 510FD

Sellers Found: 1

Available Since: Jul 13, 2005

Lowest Price: \$496.76

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30 amp recept.



**Scotsman Ice Maker w/Bin**

**Item No:** SCTSCE170A-1B

**Manufacturer:** Scotsman

**Manufacturer's Item Number:** SCE170A-1C


**Description:**

Ice Maker With Bin, Cube-Style, air-cooled, self-contained condenser, 110-lb production/24-hrs, contour shaped cube, front opening bin, 70-lb storage capacity, roto cast grey finish, price includes legs, 115/60/1

**Warranty:** 3 year parts and labor.



(Click for a larger picture )  
The actual product may differ from the item shown

**PDF Spec Sheet:**  [Detailed specifications on SCE170A-1C](#)


# SCOTSMAN

UNDERCOUNTER COMPACT CUBER WITH STORAGE

## SCE170

VOLUME PRODUCTION • 24 HOUR



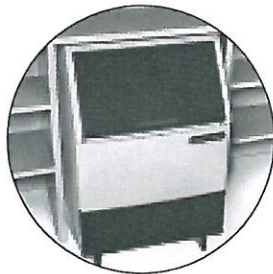
 Certified & rated in accordance with ARI standard 810-95	Air-Cooled		Water-Cooled	
	70°/50° lbs./kg.	ARI 90°/70° lbs./kg.	70°/50° lbs./kg.	ARI 90°/70° lbs./kg.
SCE170	165/75	110/50	165/75	142/64

### DEPENDABLE PERFORMANCE IN ANY CONDITION:

- 70 lbs. of storage.
- Machine makes 7/8" x 7/8" x 1/2" cubes.
- 7 ft. powercord for quick installation.
- Removable cabinetry facilitates easy access for maintenance.
- Front access to air filter, control box, water pump and float.
- With removable, cleanable air filter.
- Cabinet constructed of durable rust-free rotocast plastic.

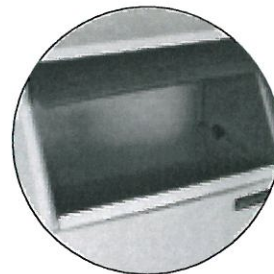
### WARRANTY *See your dealer for complete warranty details.*

- 3 years parts and labor on all components.
- 5 years parts and labor on evaporator.
- 5 years parts on the compressor and condenser.



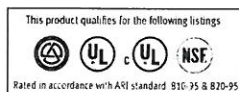
#### UNDERCOUNTER INSTALLATION

Adapts to numerous under-counter applications. Fits under any 40" counter.



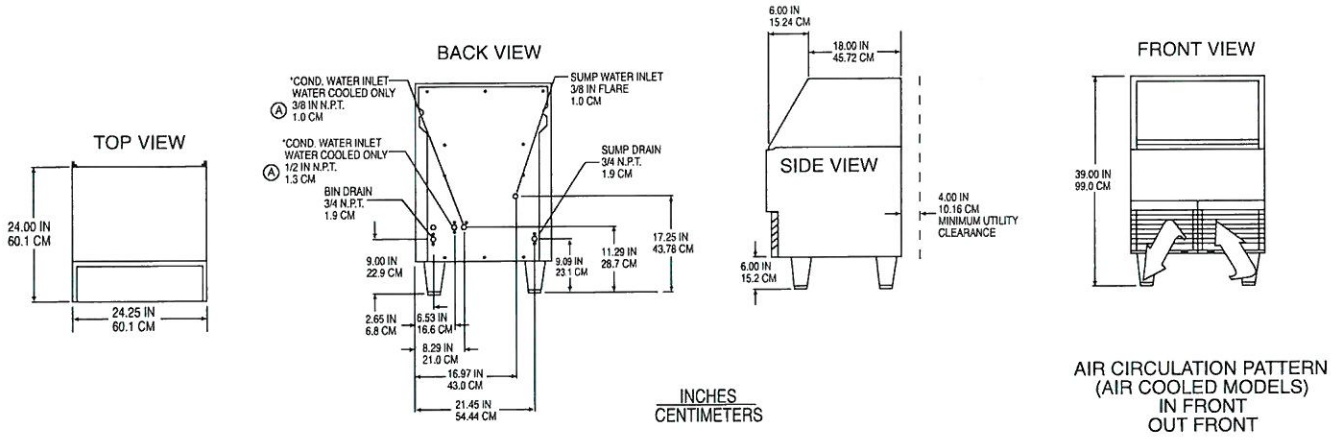
#### SLIDE AWAY ACCESS DOOR

Provides convenient and easy access to ice.



 **Scotsman**<sup>®</sup>

# Ice Machine Specifications



INSTALLATION NOTE: Allow 6" minimum space at left side and back for ventilation and utility connections.

All models: Dimensions: W x D x H without legs (Add 6" height for legs): Unit: 24-1/4" x 24" x 33" Shipping Carton: 27-1/2" x 27" x 39"												
Model Number	Condenser Unit	Bin* Cap. lbs./kg.	Basic Electrical Volts/Hz/Phase	Max. Fuse Size or HACR Circuit Breaker	Comp. HP	Circuit Wires	Min. Circuit Ampacity	Shipping Weight lbs./kg.	Power Consumption KWH/100 lbs. 90°F/70° F	Water Usage Gallons/100 lbs.		
										Potable 90°F/70° F	Condenser 90°F/70° F	
SCE170A-1A	AIR	70/32	115/60/1	15	1/4	2	CORD	185/84	12.8	50.0	-	
SCE170W-1A	WATER	70/32	115/60/1	15	1/4	2	CORD	180/82	9.5	55.0	210	

\*Bin capacity rated in accordance with ARI Standard 820-95.

Finish: rotocast grey plastic.  
Refrigerant-R-404A

LEGS SUPPLIED:  
Four plastic legs screw into mounting plates on cabinet base. Provides 6" minimum height also used on SCE 275.

Scotsman's ice machines are not designed for outdoor installations. Scotsman remote condensers are designed for outdoor installations.

Machine requires voltage indicated on rating name plate. Failures caused by improper voltage are not considered factory defects. Extended periods of operation at temperatures exceeding limitations constitutes misuse under the terms of Scotsman Manufacturer's Limited Warranty, resulting in a loss of warranty coverage. Specifications and design are subject to change without notice.

Consult Your Local **SCOTSMAN** Representative At:

## IMPORTANT OPERATING REQUIREMENTS:

	Minimum	Maximum
Air Temperatures	50°F (10°C)	100°F (37.7°C)
Water Temperatures	40°F (4.4°C)	100°F (37.7°C)
Water Pressures	20 PSIG	120 PSIG
Electrical Voltage	-5%	+10%

**YOU'LL VALUE THE DIFFERENCE™**

775 Corporate Woods Parkway • Vernon Hills, IL 60061 • 1-800-SCOTSMAN • (847) 913-9844  
Visit our website at: [www.scotsman-ice.com](http://www.scotsman-ice.com) • E-mail: [customer.service@scotsman-ice.com](mailto:customer.service@scotsman-ice.com)

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America's #1  
Selling Ice Machine[Home](#)[Products](#)[Service Support](#)[Sales Support](#)[Koolaire™](#)[De](#)[About Us](#)[News](#)[Merchandising](#)[Extranets](#)[Consultants](#)

## Undercounter Ice Cube Machines - Q270

[Key Features](#)[Spec Sheet](#)[Domestic Price List](#)[International Price List](#)[Accessories](#)[Full Line Catalog](#)

- Up to 290 lbs. (131 kg.) of ice every 24 hours
- Storage capacity of 100 lbs. (49.7 kg.)
- Measures 30" (76.2 cm) wide x 28" (71.12 cm) deep x 32.5" (99.06 cm) high on 6" (15.24 cm) adjustable legs
- Patented cleaning and sanitizing technology
- Slide up and in bin door tucks under ice machine to
- Patented ice damper maximizes ice storage capacity
- Stainless steel exterior with the fit and finish of an appliance

[Back to Ice Cube Machines](#)[Where to Buy](#)

	<p><b>Retail Price: \$1,080.00</b> <b>Our Price: \$487.00</b></p> <p>You Save: 55%</p> <p>1      Quantity</p> <p><a href="#">add to cart</a></p> <p><a href="#">add to holding bin</a></p>
<p><b>Estimated Delivery: 7 to 10 business days if in stock</b></p>	

[email to a colleague](#)

[Request Information...](#)

### 3 Compartment Sink with Drainboard on Left - 18" x 18" x 11" Tubs by SSP Inc.

- 18 gauge 304 Stainless Steel top and tubs
- 11" deep tubs
- 9" Backsplash
- Tubs welded together
- Basket strainers included
- Galvanized legs with adjustable feet
- Faucets are **not** included
- Tub Size: 18" x 18" x 11"
- Drainboard on left (image shows drainboard on right)
- Depth: 24"
- Width: 74-1/2"

#### Model Number

SE3C18X18L18

NEW STUFF!

Fans

Power Attic Ventilators

fast | easy | no minimums | See pages A2-A12 for details.

granger.com

Attic

10-YEAR WARRANTY

Mfg. offers a 10-year warranty on Nos. 4YN76 and 4YN77. Warranty available on request. See "Manufacturers' Warranties" on page inside back cover.

SP ENERGY RIGHT 100550

List	Each	Shpg. Wt.
7.17	\$41.66	12.0
4.56	64.84	12.0
3.92	76.85	12.0

10-YEAR WARRANTY

Mfg. offers a 10-year warranty on No. 4C246. Text of warranty available on request. See "Manufacturers' Warranties" on page opposite inside back cover.

SP ENERGY RIGHT 100550

Each	Shpg. Wt.
\$47.04	15.0
51.13	17.0
59.62	19.0
90.98	24.0

10-YEAR WARRANTY

Mfg. offers a 10-year warranty on No. 4CH65. Text of warranty available on request. See "Manufacturers' Warranties" on page inside back cover.

SP ENERGY RIGHT 100550

Each	Shpg. Wt.
\$110.49	26.0

**BROAN**

TESTED/CERTIFIED



No. 5C041

**BROAN ROOF-MOUNTED ATTIC VENTILATORS**

Roof-mounted ventilator with adjustable built-in thermostat operates automatically between 70° to 130°F circulating the air to help cool attic and reduce air conditioner strain. Unit has mesh screen to keep away birds and insects and easily mounts between rafters. Features include automatic reset, thermally protected and permanently lubricated motor to prevent overheating, precision-balanced 14" metal blade, 3/4" high splash guard to keep out rain, and heavy gauge metal flashing. Thermostat and motor are accessible from outside for easy servicing. Durable off-white, fade resistant PVC dome can be painted to match roof color. Broan brand.

- UL Listed (E17814)
- HVI Certified

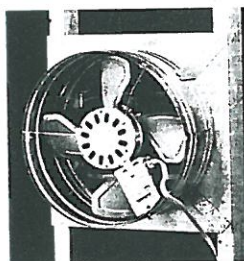
CFM @ 0.3" SP	"Free Air" Intake Req'd	Maximum Attic Area	Fan RPM	Amps	HP	Volts 60 Hz	Broan Model	Stock No.	List	Each	Shpg. Wt.
1050	3.50 sq. ft.	1500 sq. ft.	1000	3.6	1/15	120	350	5C041	\$115.32	\$56.41	15.0
1200	4.00 sq. ft.	1715 sq. ft.	1100	4.3	1/10	120	355	4C568	126.54	63.65	17.0
1600	5.33 sq. ft.	2285 sq. ft.	1500	8.0	1/5	120	356	5C042	173.69	89.11	22.0

**BROAN**

TESTED/CERTIFIED



New



No. 4C671

**BROAN GABLE-MOUNTED ATTIC VENTILATOR**

Gable-mounted ventilator with built-in adjustable thermostat operates automatically between 70° to 130°F circulating the air to help cool attic and reduce air conditioner strain. Features include thermally protected and permanently lubricated motor, precision-balanced 14" metal blade for maximum airflow, and heavy gauge galvanized steel housing with ribs for added strength. Mounting brackets included. Motor can be serviced from the attic. 15" diameter x 8" deep. Broan brand.

- UL Listed (E17814)
- HVI Certified

Description	CFM @ 0.3" SP	Shutter Type	"Free Air" Intake Req'd (Sq. Ft.)	Max. Attic Area (Sq. Ft.)	RPM	Amps	Volts 60 Hz	Broan Model	Stock No.	List	Each	Shpg. Wt.
Gable Mount w/Auto Shutter	1140	Auto	4.0	1630	950	3.4	120	353	4C671	\$103.41	\$51.65	12.0
Gable Mount w/Wood Shutter	900	Wood	3.0									
Gable Vent	1600	—	5.3	2285	1500	6.0	120	35316	5ZR16	157.90	82.90	13.0

**Honeywell**



No. 2E574

**HUMIDITY CONTROL FOR ATTIC VENTILATORS**

Provides automatic control of attic ventilator to prevent humidity from exceeding selected relative humidity level. Range adjusts from 20-80% with 4-6% differential. External control has nylon element and snap action micro-switch rated 7.5 full-load amps @ 115V, 60 Hz.

Bronze plastic cover and metal adapter plate for vertical switch box mounting. Wiring diagram included. 4 1/4"H x 2 1/2"W x 1 3/4"D. UL Listed. CSA Certified. Honeywell brand (H46C100).

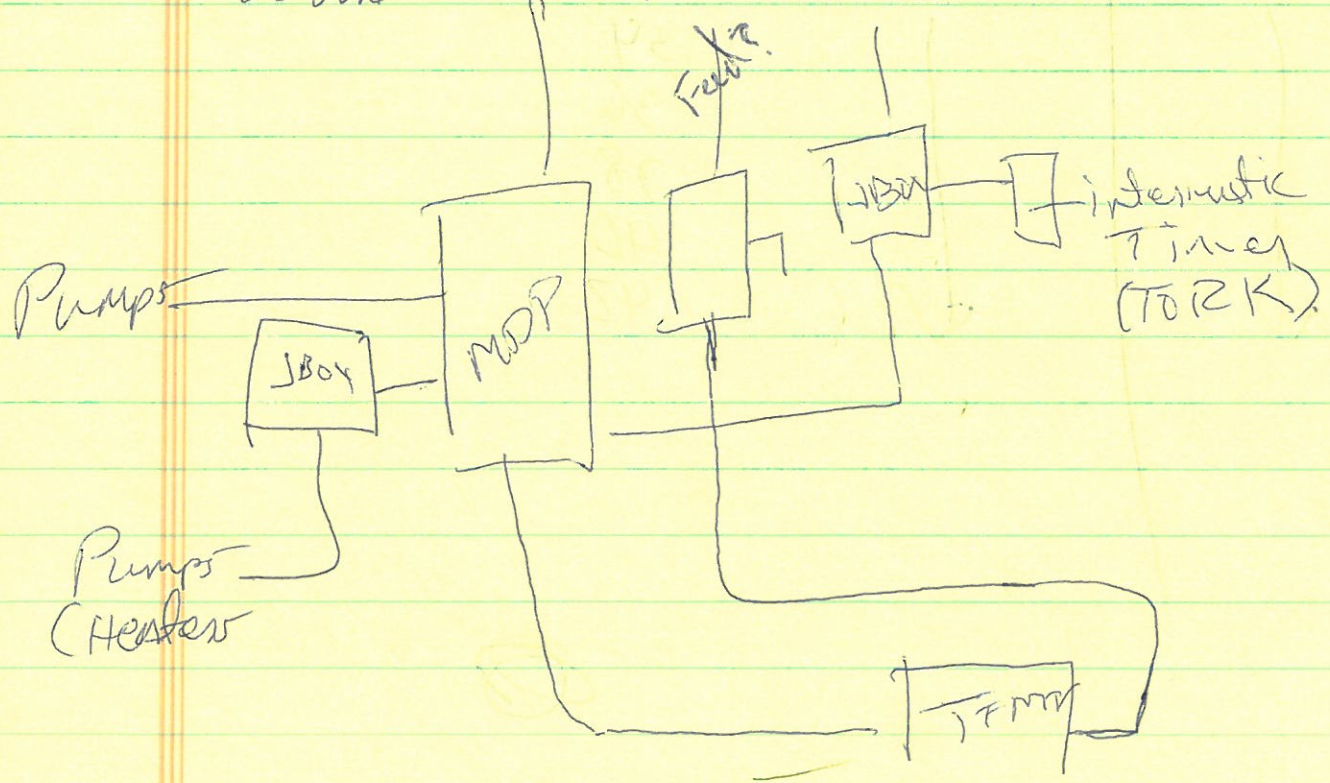
No. 2E574. Shpg. wt. 1.0 lbs. List \$104.59  
Each.....\$55.50

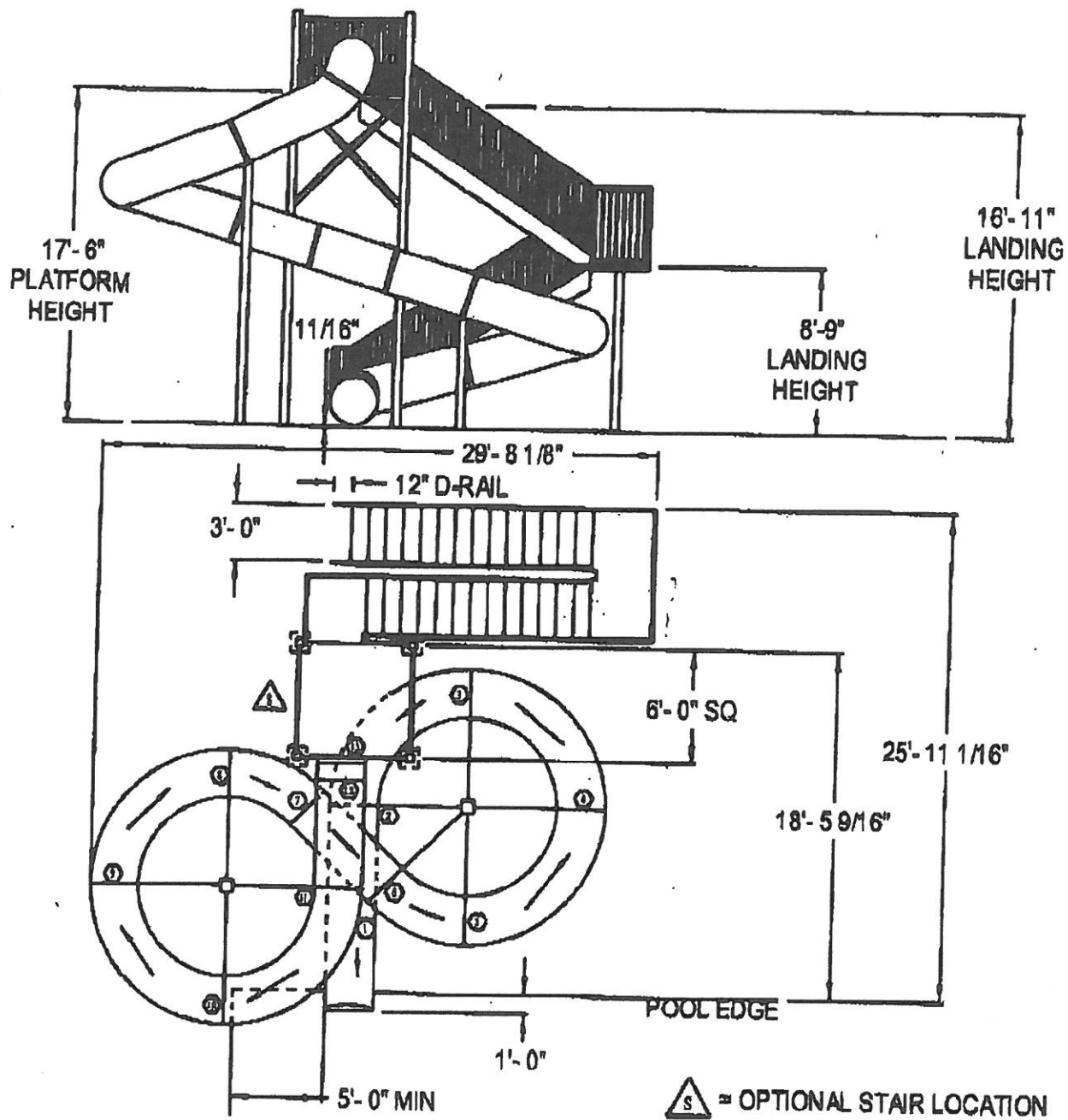
Heated Pool: Yes  
 HVAC for Poolhouse (small) ~~standby~~  
 Location of Cool Deck  
 Power Availability (Picture)  
 Exit Req'ts  
 What Else do you want Bldgs at  
 Gutters req'ts for Bldgs  
 Glass Door for Rottball Ct.  
 Discuss Central A/C for Rottball

Flush w/ Ground

NOT

Just 12' Cool Deck  
 What is 4' Around Pool





### PLAN VIEW

MODEL: 1617-LH66C36-0736E12  
 TOTAL RUN: 104'-5"  
 SIZE OF FLUME: 30" INSIDE DIAMETER  
 SLIDE PLATFORM HEIGHT: 17'-6"  
 SLIDE ENTRANCE HEIGHT: 18'-0"  
 STAIR CONFIGURATION: 7" RISE / 11" RUN (13 STEP / 4 STEP) 36" WIDE

SCALE: 1/8" = 1'

SPACE REQUIREMENT:  
25-11 1/16" BY 29'-8 1/8"

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PAGE 05/06

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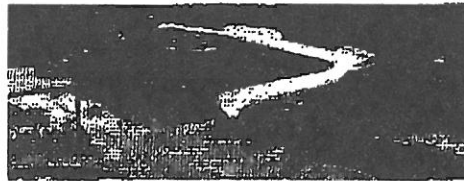
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13:20 01/29/2007



FACSIMILE TRANSMITTAL SHEET

TO:	Aaron	FROM:	Leslie Maiwald
COMPANY:	Danmon Engineers	DATE:	2/1/2007
FAX NUMBER:	985-641-5950	TOTAL NO. OF PAGES INCLUDING COVER:	
PHONE NUMBER:	985-649-5832	SENDER'S PHONE NUMBER:	
RE:	Slide # 1617	YOUR REFERENCE NUMBER:	



NOTES/COMMENTS:

Dear Aaron:

Here is the plan drawing per our phone call, and I took the liberty of sending you the mirror image also. Together with a few other items of information.

Call with any questions,

  
Leslie Maiwald  
800-252-8475

*Aaron  
Attached  
Dump info*

P.O. BOX 270 BAKER CITY, OREGON, 97814  
[LESLIE@NATURALSTRUCTURES.COM](mailto:LESLIE@NATURALSTRUCTURES.COM) [WWW.NATURALSTRUCTURES.COM](http://WWW.NATURALSTRUCTURES.COM)

**CENTRIFUGAL PUMPS & WATER LINE INSTALLATION**  
**1/2 HP, 3/4 HP, and 1-1/2 HP PUMPS**

Designed to work with semi-corrosive solutions and chemicals.

Thermal protected, totally enclosed, fan-cooled, split-phase motor with ball bearings. Conduit box must be wired in field.

Pump Installation

Pump can be installed in the pump house. This information is for the pump installation under the slide platform and close to the support post that is connected to the flume.

- (1). Locate mounting position for pump near front (nearest pool) or near tower post, maintaining a minimum of 5' from pump to pool. Mark location of mounting slots in pump base and install 3/8" x 2-3/4" concrete wedge anchor at each location. Place the pump/stand with the water inlet end toward the pool, directly next to the inside edge of the tower post nearest the pool edge. The water outlet should be next to the most forward corner of the post. However, on some applications, it may be necessary to put the pump next to the back post to maintain a 5' minimum to the pump from the water's edge. (Refer to your local codes for exact placement requirements). Use the pump base as a template to mark the concrete to drill. Move the pump out of the way.
- (2). Drill two (2) 3/8" diameter x 4" deep holes on the marks and install the two (2) 3/8" concrete wedge anchors.
- (3). Set the pump onto the anchor bolts and loosely secure it to the pool deck using 3/8" washers and nuts. Do not tighten yet, as some minor adjustments may be necessary later.
- (4). Teflon™ tape must be wrapped around the threads of all PVC threaded joints. PVC (waterproof) adhesive must be used on all slip fit joints after all system alignments have been completed.
- (5). Connect the PVC (1-1/2" thread to 1-1/2" slip) adapter to the inlet of the pump.
- (6). Connect a straight, 1-1/4" x 4" long PVC section to the adapter. Connect a 90° elbow. Connect another 1-1/2" slip-on to 1-1/2" slip-on 90° elbow to the last piece pointing towards the pool.



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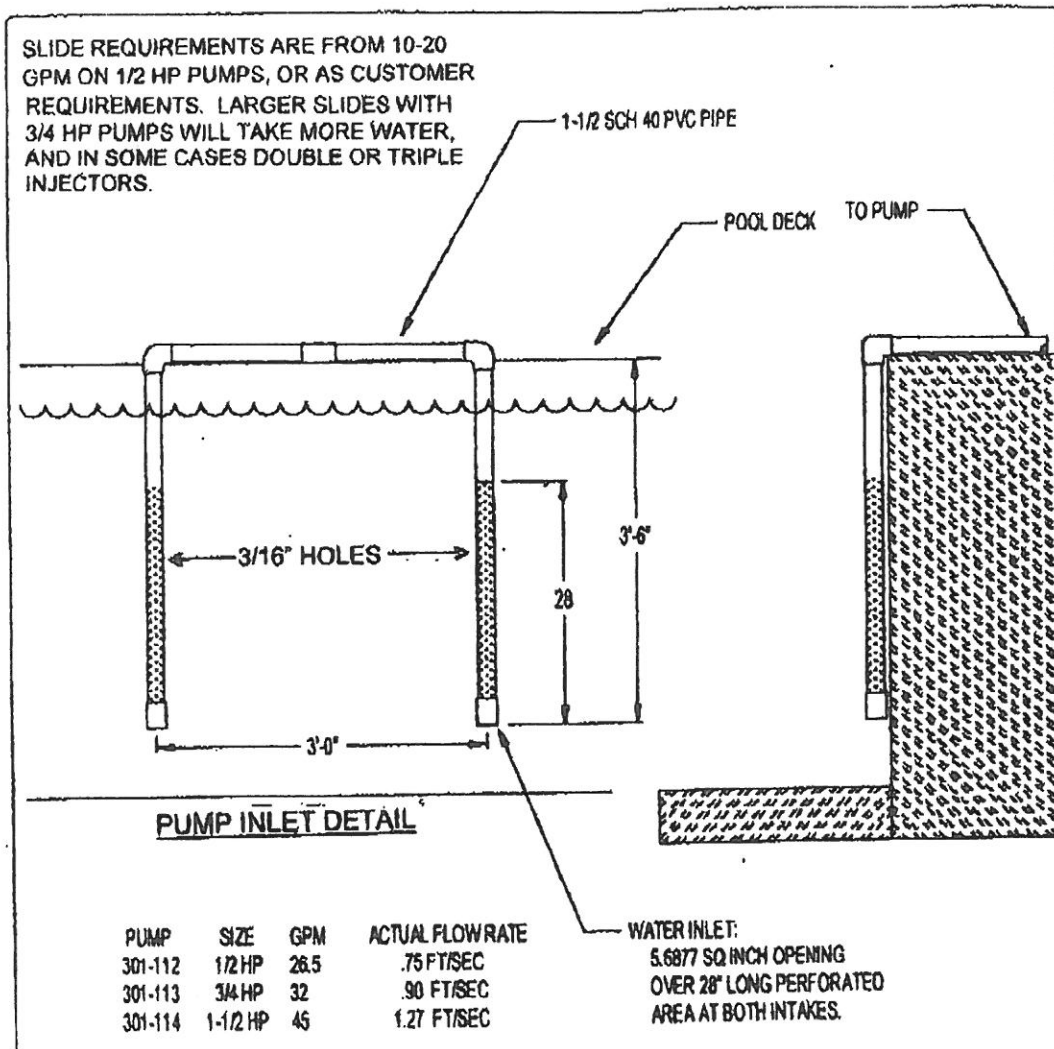
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## CENTRIFUGAL PUMPS & WATER LINE INSTALLATION

### Pump to Pool Edge Water Line Installation (continued)

(7). Connect a 1-1/2 straight pipe to the last 90° elbow. It must be long enough to reach the edge of the pool. The straight pipe must have at least a 1° slope downward towards the pool edge. This adjustment can be made by twisting the previous set of 90° elbows to lift or lower the pump end of the water line. This ensures that there is no water entrapment during "non-use periods". (Example: Freezing conditions or system maintenance, etc.). Refer to Figure 1.



- (8) Place a Tee at the end of the PVC pipe so the water inlet tubes can be placed as shown in the above diagram.
- (9) Place the two water inlets approximately 30" apart, pointing toward the bottom of the pool, as shown in the above diagram.

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Page 2

## CENTRIFUGAL PUMPS & WATER LINE INSTALLATION (continued)

### Pump to Pool Edge Water Line Installation (continued)

(10). Install a 1-1/2" female adapter onto the pump outlet pointing towards the tower post. (Teflon™ tape must be wrapped around the threads of all PVC pipe joints). (See Figure 1).

(11). Install a 1-1/2" x 45° elbow onto the adapter. A short piece of 1-1/2" PVC straight pipe will be necessary.

(12). Install a straight section of 1-1/2" PVC pipe long enough to reach the tower post onto the 45° elbow. (See Figure 1).

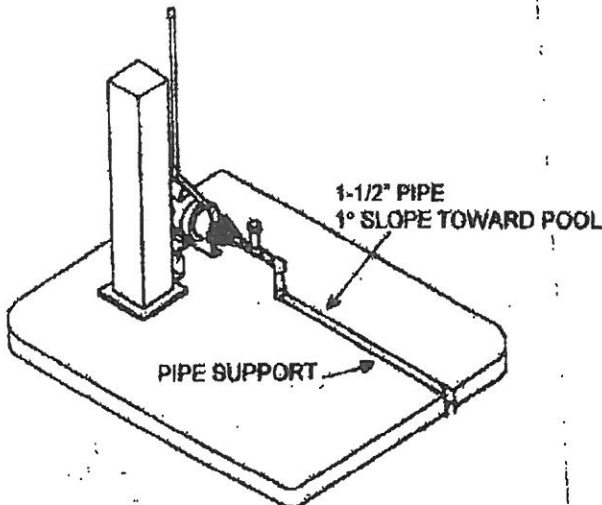


FIGURE 1.

(13). Install another 45° elbow to the straight pipe pointing it upward toward the top of the post.  
Note: All water lines must have a downward slope for drainage. (See Figure 1).

(14). Install straight PVC pipe upward to the tower deck. Secure PVC pipe to the tower post using plastic tie straps or Sconduit straps & 1/4" Tek screws. (See Figure 2).

(15). On a two injector system using a 1/2 HP pump, install a "T" and valve for the second line to maintain an equal water pressure to both injectors. (See Figure 2).

(16). Install the necessary elbow to direct the pipe towards the side of the flume 12" away from the panel.  
Note: Do Not install the injector on a seam. Move the injector as necessary to position it close to the specified location (See Figure 2).

(17). Install a straight pipe long enough to reach the side of the flume 12" away from the panel. (See Figure 2).

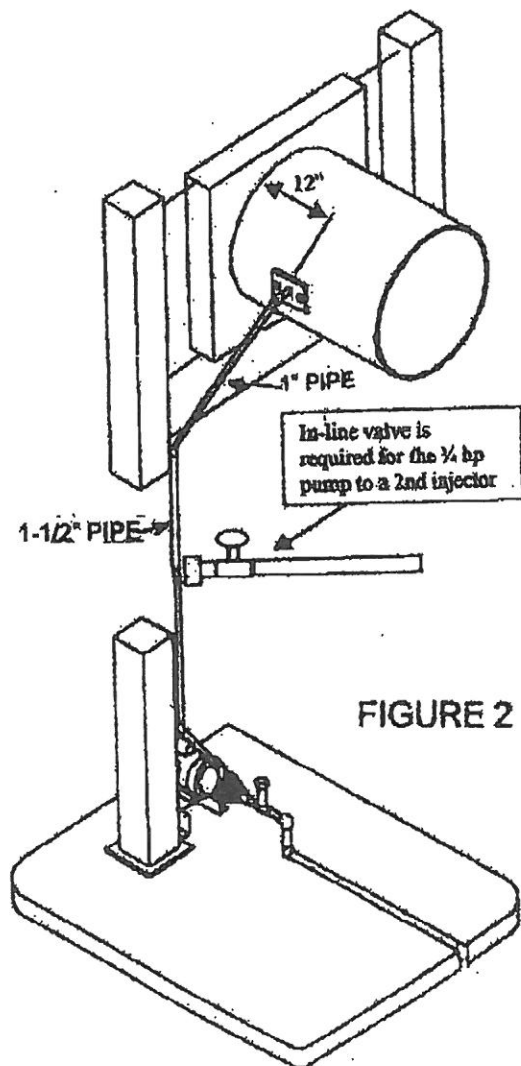


FIGURE 2

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## ELECTRICAL GUIDE - 60 CYCLE MOTORS - SINGLE PHASE

MOTOR		VOLTS	CIRCUIT BREAKER RATINGS-AMPS	BRANCH FUSE/RON RATINGS-AMPS	RECOMMENDED WIRE SIZE 0-50'
KW	HP				
.37	1/2	115	15	15	No. 14
.55	3/4	115	15	15	No. 14
		230	10	6.25	No. 14
.75	1	115	20	20	No. 12
		230	10	9	No. 14
1.10	1-1/2	115	15	30	No. 10
		230	10	15	No. 14
1.55	2	115	30	30	No. 10
		230	15	12	No. 14
1.88	2-1/2	230	20	20	No. 12

### TROUBLE SHOOTING GUIDE

#### A. MOTOR WON'T START

1. Check for improper or loose connections, open switches or relays, blown circuit breakers or fuses.
2. Manually check rotation of motor shaft for free movement and lack of obstruction.

#### B. MOTOR CUTS OUT—Check for:

1. Wiring, loose connections, etc.
2. Low voltage at motor (frequently caused by undersized wiring).
3. Binding and overload. (Ampereage reading)

**NOTE:** *Your Hayward pump motor is equipped with Automatic Thermal Overload Protection. The motor will automatically shut off, under normal conditions, before heat damage build-up, due to an improper operating condition, can occur. The motor will auto-restart when safer heat level is reached.*

#### C. MOTOR HUMS, BUT DOES NOT START—

Check for:

1. Governor stuck in open position.
2. Open capacitor.

#### D. PUMP WON'T PRIME

1. Make sure pump/strainer housing is filled with water and that cover gasket is clean and properly seated. Tighten hand knob.
2. Make sure all suction and discharge valves are open and unobstructed, and that pool water level is above all suction openings.
3. Block off suction as close to pump as possible and determine if pump will develop a vacuum.
  - a. If pump does not develop a vacuum and pump has sufficient "priming water":
    1. Tighten all bolts and fittings.
    2. Check voltage to make sure pump is up to speed.
    3. Open pump and check for clogging or obstruction.
    4. Remove and replace shaft seal.
  - b. If pump develops a vacuum, check for blocked suction line or strainer, or air leak in suction piping.

#### E. LOW FLOW—Generally, check for:

1. Clogged or restricted strainer or suction line; undersized pool piping.
2. Plugged or restricted discharge line of filter (high discharge gauge reading).
3. Air leak in suction (bubbles issuing from return fittings).
4. Pump operating underspeed (low voltage).
5. Plugged or restricted impeller.

#### F. NOISY PUMP— Check for:

1. Air leak in suction causing rumbling in pump.
2. Cavitation due to restricted or undersized suction line and unrestricted discharge lines. Correct suction condition or throttle discharge lines, if practical.
3. Vibration due to improper mounting, etc.
4. Foreign matter in pump housing.
5. Motor bearings made unserviceable by wear, rust, or continual overheating.

#### SERVICE & REPAIRS

Consult your local authorized Hayward dealer or service center. No pumps or motors may be returned directly to the factory without the expressed written authorization of Hayward Pool Products, Inc.

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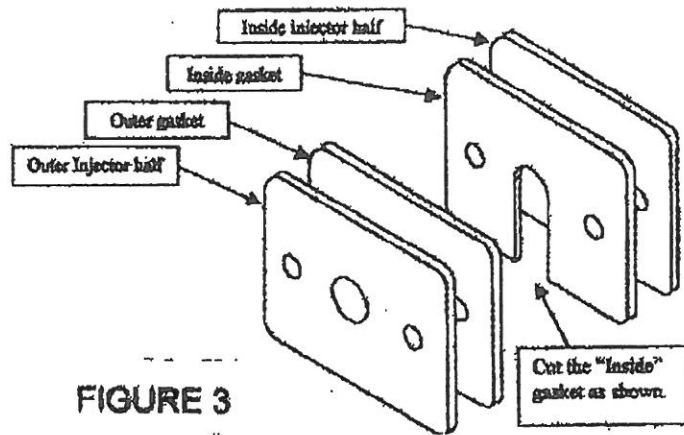
## CENTRIFUGAL PUMPS & WATER LINE INSTALLATION

### Water Line to Injector Installation:

(18). Position outer half of water injector on the outside of flume 12" away from the panel and at the 9:00 position. Use the injector as a template. Rotate the injector half approximately 15° counterclockwise so that the inside water stream is pointing slightly downstream to wet the ride surface, then mark the flume for the three (3) holes to be drilled.

(19). Remove the injector and drill the two (2) outer holes using a drill and 7/16" drill bit. Drill the center hold using a 1-1/8" drill bit.

(20). Cut the "inside" gasket as shown in Figure 3, then attach the injector to the flume as shown in Figure 4.

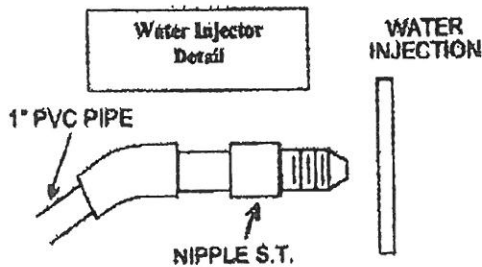


**FIGURE 3**

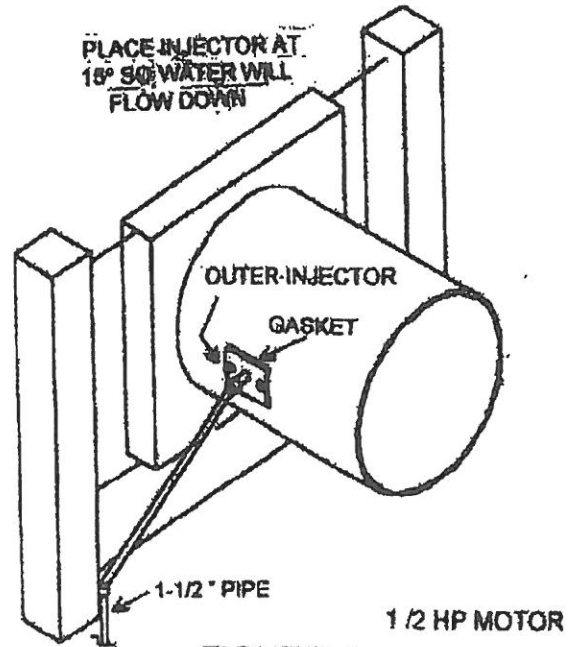
(21). Screw the pipe nipple into the outside half of the injector. See Figures 4 and 5.

(22). Attach a PVC slip-thread nipple to the water injector. Do not screw the nipple past the flume section as it will restrict the water flow. See Figures 4 and 5.

(23). Attach the water line.



**FIGURE 5**



**FIGURE 4**

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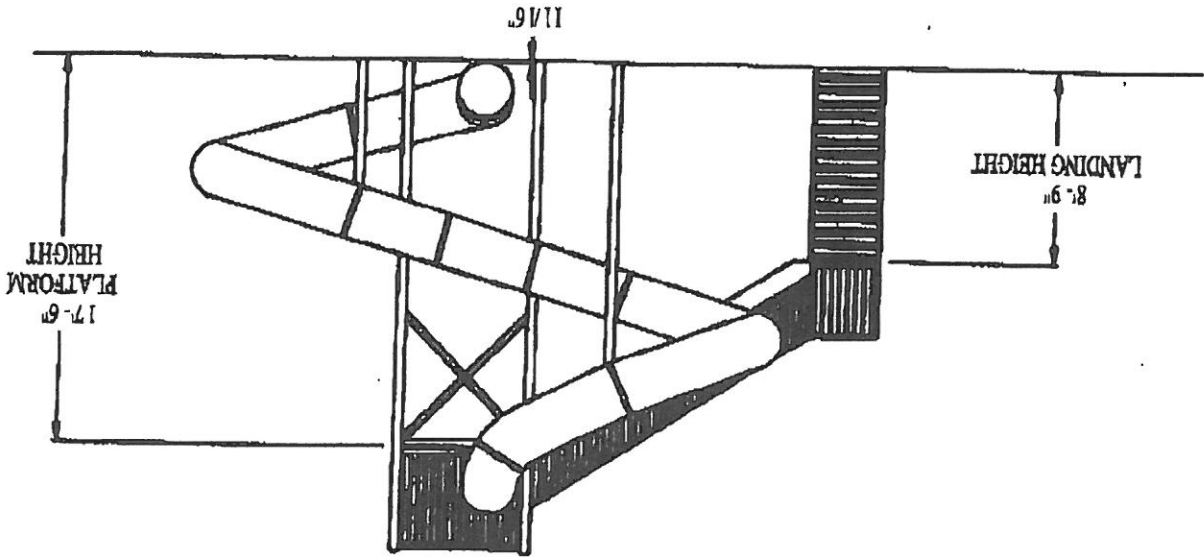
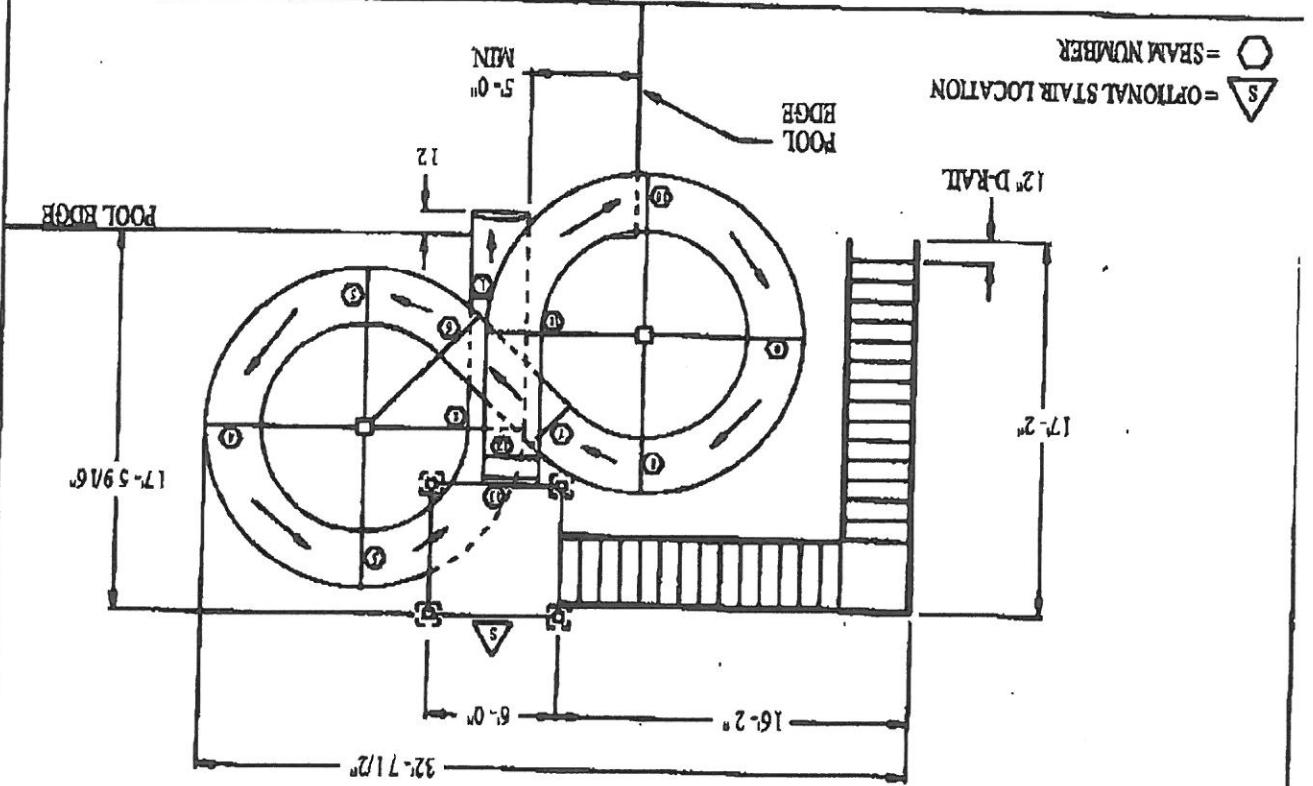
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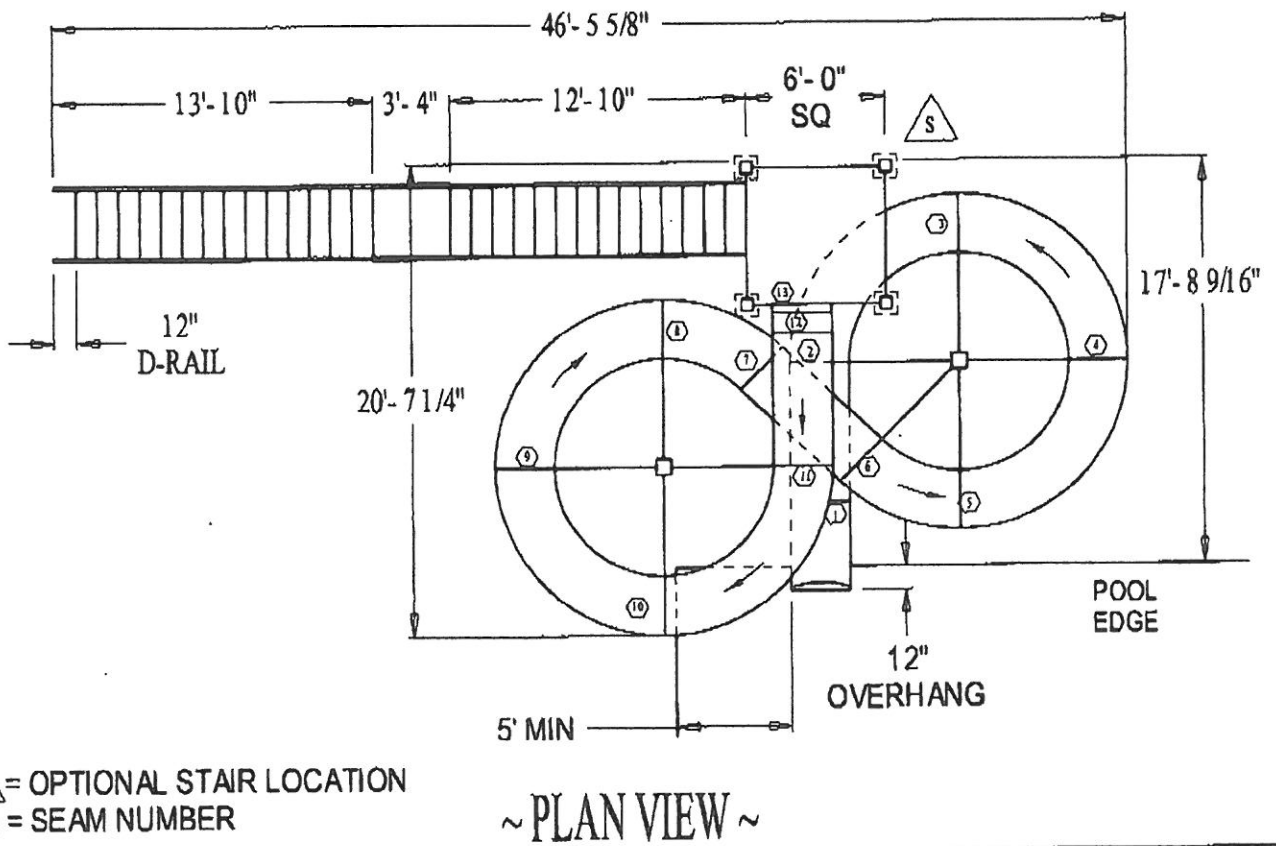
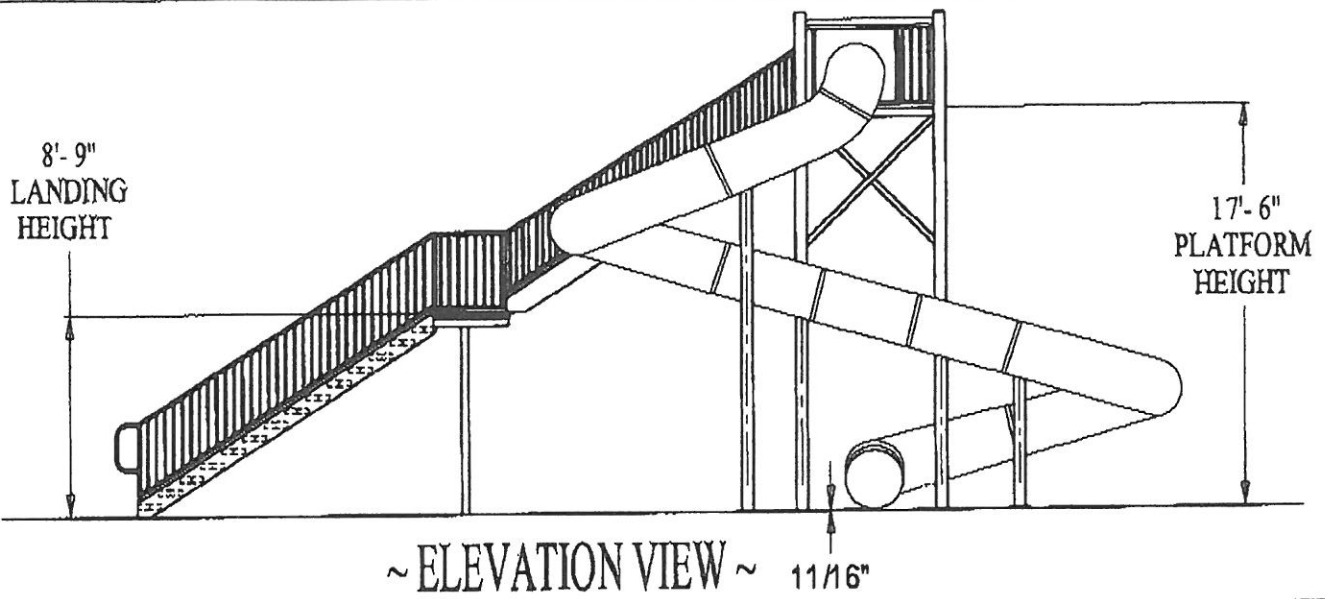
MODEL: 1617-LH66R21-0736E12  
 TOTAL RUN: 104'-5"  
 SIZE OF FLUME: 30" INSIDE DIAMETER  
 SLIDE PLATFORM HEIGHT: 17'-6"  
 SLIDE ENTRANCE HEIGHT: 18'-0"  
 STAIR CONFIGURATION: 7" RISE / 11" RUN (4 STEPS / 4 STEPS) 36" WIDE

SCALE: 1/8" = 1'

\* SLIDE SHOWN WITH 12"  
 OVERHANG INTO POOL  
 AND 90° STAIR LAYOUT.

## ~PLAN VIEW~





MODEL: 1617-LH66R24-0736E12  
 TOTAL RUN: 104' - 5"  
 SIZE OF FLUME: 30" INSIDE DIAMETER  
 SLIDE PLATFORM HEIGHT: 17' - 6"  
 SLIDE ENTRANCE HEIGHT: 18' - 0"  
 STAIR CONFIGURATION: 7" RISE / 11" RUN (14 STEP / 14 STEP) 36" WIDE

SCALE: 1/8" = 1'

SPACE REQUIREMENT:  
 17'-9" BY 47'-0"

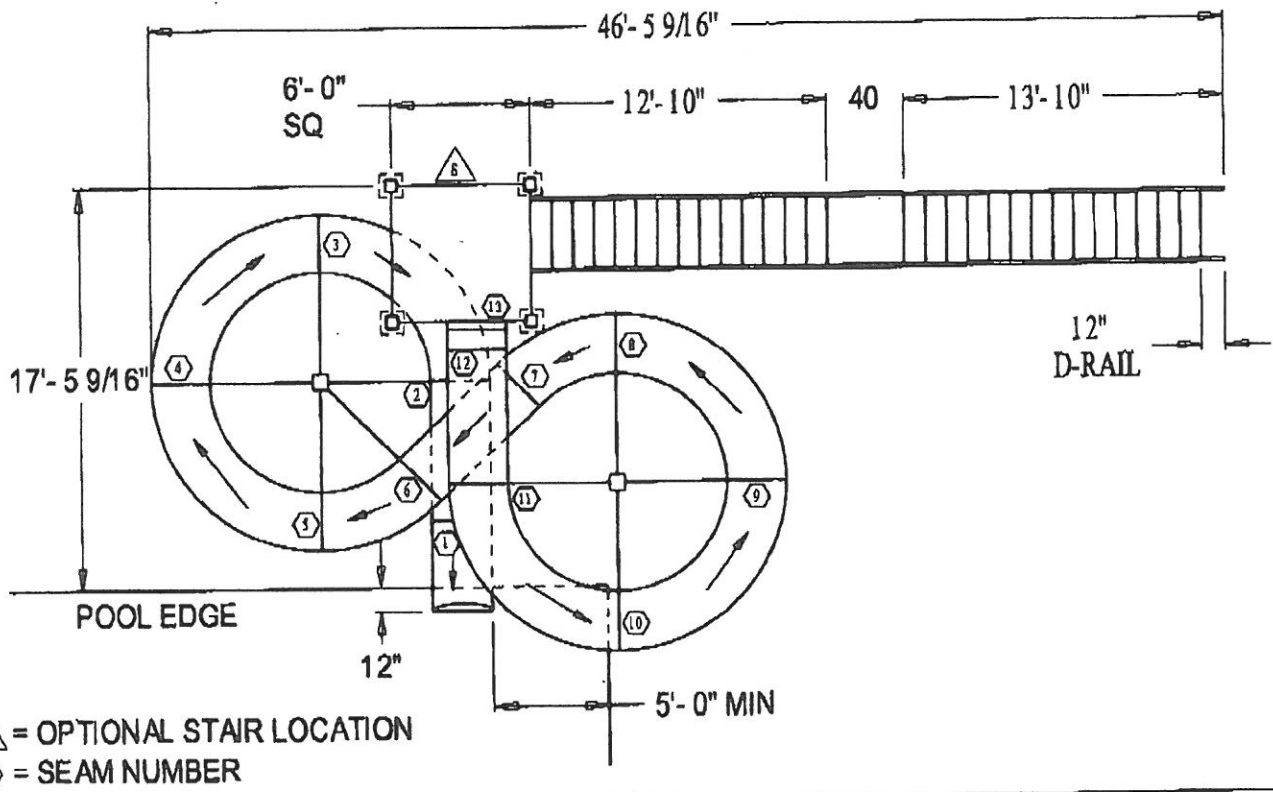
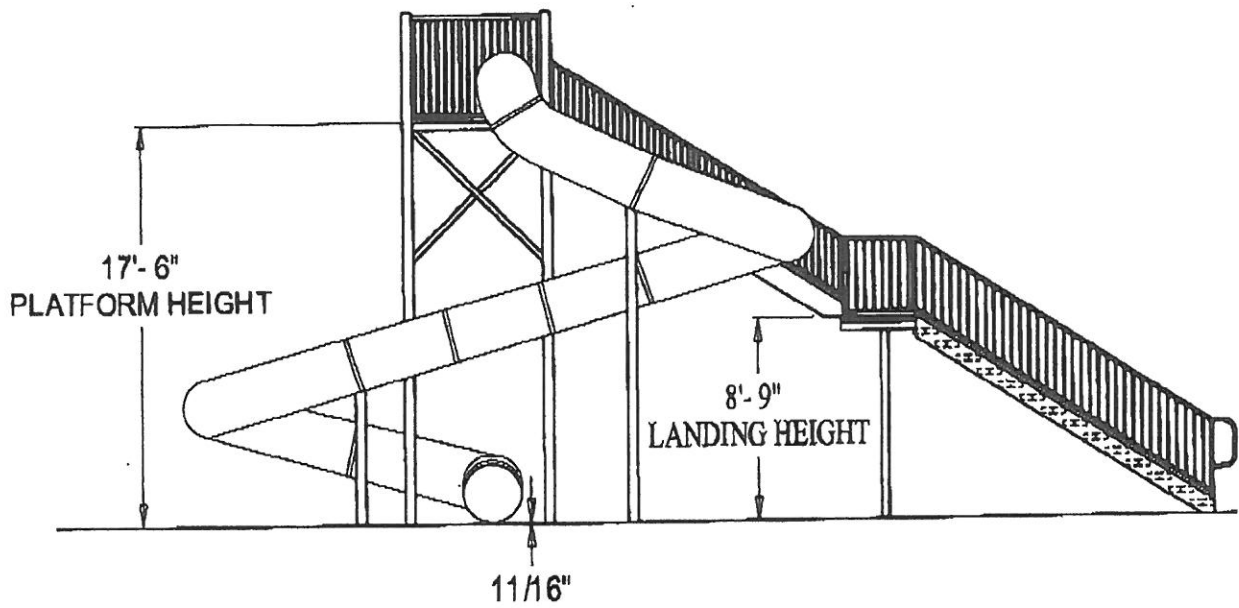
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FINAL 10' OF SLIDE 0° TO 5°  
 (1" IN 10' MAX SLOPE)

SLIDE SHOWN WITH 12"  
 OVERHANG INTO POOL  
 AND STR STAIR LAYOUT

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~ PLAN VIEW ~

MODEL: 1617-RH66R54-0736E12  
 TOTAL RUN: 104'-5"  
 SIZE OF FLUME: 30" INSIDE DIAMETER  
 SLIDE PLATFORM HEIGHT: 17'-6"  
 SLIDE ENTRANCE HEIGHT: 18'-0"  
 STAIR CONFIGURATION: 7" RISE / 11" RUN (14 STEP/14 STEP) 36" WIDE

SCALE: 1/8" = 1'

SPACE REQUIREMENT:  
 17'-5 9/16" BY 46'-5 9/16"

SLIDE SHOWN WITH 12"  
 OVERHANG INTO POOL  
 AND 90° STAIR LAYOUT

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## POOL SLIDE FACTS AND ANSWERS TO CUSTOMER QUESTIONS

Natural Structures **designs, engineers and manufactures** all the fiberglass and polyethylene slides shown in our brochures along with many other standard and special plans not show. The polyethylene color is impregnated into the 3/8" thick material. The fiberglass colored gel-coat thickness is 18-25 mil thick on the sliding surface and 10-14 mil thick on the outside surface. Fiberglass is 1/4" or greater in thickness.

**1. Free Factory Technical Assistance.**

All the 1600 and 9400 series polyethylene slides come with 2 to 5 days on-site factory technical assistance. If footings are ready, most slides are 1/2 to 2/3's finished within this time period (providing tools and manpower are on-site).

**2. Option:** On-Site Factory Technical Assistance. For slides not on the technical assistance program. Two or three days of technical assistance can be purchased.

**3. Difference between the North Star Series and Deluxe Series.**

**A. North Star Series:** Powder coated **stainless steel** flume base plates and tower base plates. All other steel (mild) components are powder coated after a **chemical resistant Aqua-Kote** undercoating is applied for a total of **6-8 mil thick** coating. All **hardware is stainless steel**.

**B. Deluxe Series:** Powder coated **stainless steel** stair and tower guard railing, X-bracing, tower platform bracing, flume bands (polyethylene slides), flume base plates and tower base plates. All other steel (mild) components including the 14" flume support posts and stair channels are powder coated after a **chemical resistant Aqua-Kote** undercoating is applied for a total of **6-8 mil thick** coating. All **hardware is stainless steel**.

**A.** Galvanized finish is an option. Remember, **color attracts** people.

**4. Footings**

Footings are not required on polyethylene slides with tower heights of 12 ft. or less; they are bolted directly to the pool deck and secured with concrete wedge anchors. On the larger slides where footings are required, Natural Structures sends, prior to the slide shipment, a footing design layout with footing sizes, depth and width so the concrete can be poured. On new pools these footings should be poured at the same time as the pool deck. When footings are poured seven (7) days prior to installation time the slide can be installed immediately upon arrival. Footings are poured to grade or pool deck level. Standard anchoring of the slide is done by drilling the concrete footing pad then epoxying in place a 5/8" to 1-1/4" diameter stainless steel rod.

**5. Powder Coating**

Natural Structures has the latest **state-of-the-art powder coating equipment**. Raw materials are sandblasted, followed by a phosphate wash that is oven dried, then immediately followed by powder coating. In-house processing assures **total quality control** of powder coating.

**6. Colors**

Powder Coating: 11 standard colors. Other color choices are available.  
 Polyethylene Flume: 8 standard colors. Other colors are available for large projects.  
 Fiberglass Flume: 10 standard colors. 30 other color choices are available.

**7. Stairs:** All of our plans have optional stair locations and configurations. The **plans can be reversed** and other stair configurations are available, such as switchback, cantilever, wrap-a-round, etc.

**8. Revenue and Attendance Increase.**

Most of our 1600 series slides are **increasing pool attendance and revenue 50% or more**. Mitchell, SD and Garrett, IN increased attendance more with the 14' and 18' high slides. A club in southern California, who could not sell any more memberships, sold \$21,000 in memberships in 3 weeks **after** installing our 10 ft. high model 1625 slide.

**NATURAL STRUCTURES DESIGNS ENGINEERS AND MANUFACTURES**

Body Slides	Spray Playground Toys	Drop Slides	Hillside, Dock & Lake Slides
Spray Stations	Multi-flume racing slides	Family Raft Slides	Narrow Deck Slides

**NATURAL STRUCTURES**

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1.5.07

NS Docs/SalesDept

## POOL SLIDE ADVANTAGES AND OPTIONS

Natural Structures water slides are designed for **commercial** applications for families and all age groups with platform heights up to 40 ft. and more for a safe and thrilling recreational experience.

Slide options: Closed flume, open flume, multiple flume, combination flumes, drop slides, raft rides, body slides, racing lanes, and speed slides.

- **Stainless steel base plates, anchor bolts and hardware on all models.**
- Stainless steel hand rails, guard rails, platform bracing and flume connector bands on the **Deluxe Series**.
- Total stainless steel tower and slide bracing options upon request.
- **Stair Options:**
  1. 36" or 48" wide with 7" rise, 11" tread (7/11)
  2. Spiral stairs – 12 to 14 gauge metal with thermoplastic anti-slip coating, closed risers and sides. Standard colors to match powder coat colors.
  3. 18" or 24" wide stairs for beginners and youths.
  4. Switch back, straight, wrap around or 90-degree stair configurations.
- Welding is all done by **AWS certified welders** in both mild and stainless steel.
- Freight damage? Factory direct for replacement parts within 24 hours.
- Design flexibility.
- All manufacturing is done in-house, in one facility.
- All powder coating is tested for adherence, durability, quality, and proper thickness.
- Chemical resistant coating option.
- All steel is finished with a TGIC polyester powder coat finish, and upon request "Aqua-Kote, a chemical resistant epoxy undercoating designed for salt water and corrosive chemical environments can be applied prior to the powder coating for a total of 8-10 mil. thick finish coat.  
<http://www.fredwernerco.com/powdercoating.html>

## POOL SLIDE ADVANTAGES AND OPTIONS (continued)

-2-

➤ **Factory employed installers.**

1. Total Installation.
2. Factory supervision with your crew.

➤ **Factory supervision** during installation is included in the pricing on some 1600 and 9400 series slides (see price list).

➤ Design flexibility – move stairs, change stair configuration, flume exit, new slide design for your space.

➤ Slide Flume turning **radius** varies from **4' 4" to 15'** giving the user many options in design and comfort.

➤ **35 and more color** choices.

➤ Local State Engineering Stamp option.

➤ **Surface mount** directly to pool deck on many models without pouring footings.

➤ **Polyethylene flumes.**

1. 10 ft. length of flume without seams for added comfort.
2. Full 90 degrees radius curve without seams for added comfort.
3. Special manufactured bolt for a flush and smooth fit (11 bolts per seam).
4. 30" inside diameter flume design & molded.
5. Less flume seams.
6. Very smooth sliding surface.
7. Bell application for a smooth ride and water-tight seal.

➤ Large slides exit into 3 ft. of water.

➤ **Fiberglass.** 36" inside diameter body slide. 54" inside diameter raft ride.

➤ Our slides do not leak.

➤ **Open flume** curves are banked (1 piece molded into the flume).

➤ **No Pool.** Run-out troughs attached to the slide exit flume with the option of a complete re-circulating system with filter, chlorinator, controller, holding tank, etc.

➤ Multi flume towers up to 40 ft. and higher.

➤ Over-the-deck pump package. Complete pool water re-circulating system with stainless steel inlet basket

# **NATURAL STRUCTURES**

## **SPECIFICATIONS**

### **30" POLYETHYLENE WATER SLIDES w/ "Z" DECK TOWERS up to 32' High Towers**

**(-07 stair is 7" rise; 11" tread, 36" or 48" wide) (-10 stair is 10" rise; 12" tread, 36" wide)**

### **SLIDES ARE DESIGNED FOR COMMERCIAL USE IN PUBLIC AREAS**

**A. Deluxe Series:** The following is powder coated stainless steel:  
Tower guardrail, stair handrail, flume bands, flume legs, short vertical flume support and platform angle bracing. Tower and flume post base plates are 3/8"x10"x10" for towers up to 18' high and 1/2"x12"x12" for towers over 18' high.

The 6"x 6" tower post, 8" x 8" flume post, and stair side channels are mild steel. All stainless steel is type 304. Flat bar is A240. Pipe is grade A312. Tubing is grade A778 or A554. Finish is listed below.

**B. North Star Series:** All posts, walls, guardrails, flume bands, and flume leg supports are "Mild Steel". The base plates on tower posts and flume legs are stainless steel. Finish is listed below. Flat bar steel grade A36. Pipe is steel grade A53 or A120. Tubing is grade A500.

### **C. GENERAL SPECIFICATIONS**

1. **POSTS:** Tower posts are 3/16" x 6" x 6" square steel with welded tabs and end caps. Slide center posts are 3/16" x 8" x 8" square steel with welded mounting tabs.  
**Note:** Post size & wall thickness will vary with slide requirements.

2. **SLIDE FLUME:** is ultra violet stabilized color impregnated polyethylene, 30" I.D. inside diameter with 0.375" thick wall.

#### **3. SLIDE SUPPORTS:**

**SUPPORT ARM from flume post** is 3-1/2" O.D. x 1/8" wall pipe with 2x2x3/16" angle support brace.

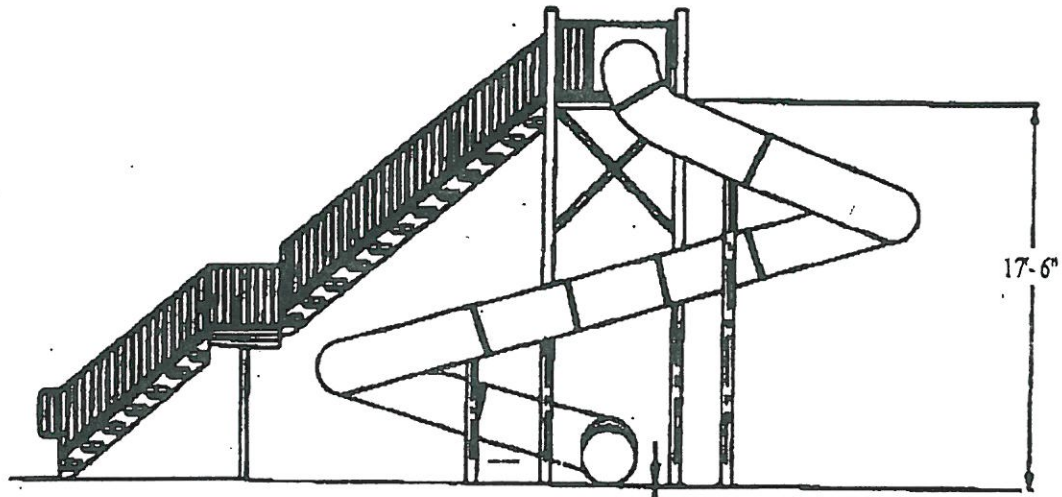
**CONNECTION ARM from the support arm to the flume** is 2-3/8" O.D. schedule 40 pipe. All pipe is grade A53 or A120 stainless steel.

**BOTTOM LEGS** are adjustable 2-3/8" O.D. schedule 40 pipe and 1-7/8" O.D. schedule 40 pipe. Bottom legs are stainless steel on the North Star and Deluxe series.

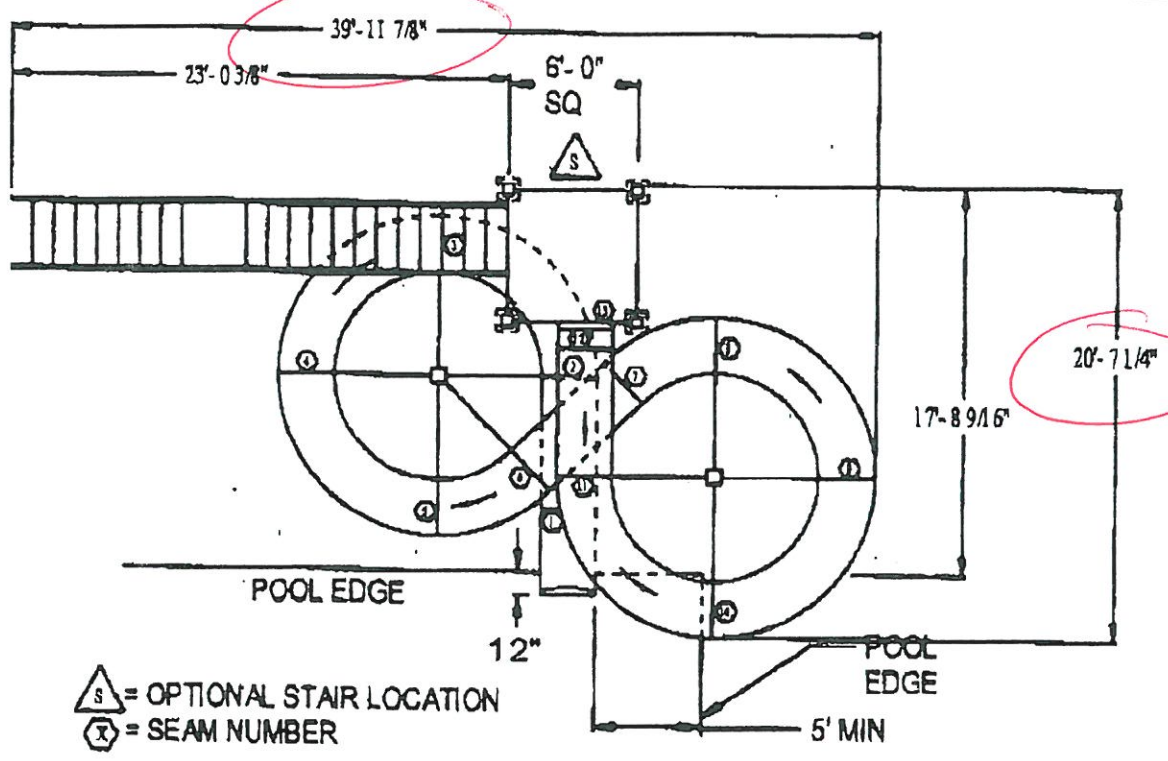
4. **HARDWARE FASTENERS:** for flume seams are 3/8" and 1-1/2" #304 stainless steel wafer-head bolt, washer and lock nuts. All 3/8" stainless steel bolts have a minimum yield of 30,000 psi and a tensile strength of 90,000 psi. Anchor bolts are 1/2"x3-3/4" concrete wedge anchor, or 5/8" and up to 1 1/2" stainless steel epoxy anchor bolts with varying lengths as required by engineer. Each plan will show bolt specifications. All tower and stair hardware is stainless steel except where structural integrity requires a galvanized bolt, nut and lock washer (A307). **Note:** For pools with tile or other non-structural top surfaces, call Natural Structures' or your representative.

5. **07 & 10 SERIES STAIRS** are manufactured from 3" x 6" wide planks of 100% recycled plastic. Stair side channels are 10" x 8.4# channel. Railings are 42" high for the platform. The guardrails are 1.31" O.D. steel pipe with 5/8" O.D. 16-gauge uprights for the Deluxe &

TO LESLIE



11'-6" ~ ELEVATION VIEW ~



~ PLAN VIEW ~

46 1/2

MODEL: 1617-RH66R24-1036EI 2  
TOTAL RUN 104' - 5"  
SIZE OF FLUME: 30" INSIDE DIAMETER  
SLIDE PLATFORM HEIGHT: 17' - 6"  
SLIDE ENTRANCE HEIGHT: 18' - 0"  
STAIR CONFIGURATION: 10" RISE / 12" RUN (12 STEP / 7 STEP) 36" WIDE

SCALE: 1/8" = 1'

SPACE REQUIREMENT:  
17'-9" BY 40'-0"

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FINAL 10' OF SLIDE 0° TO 5°  
(1" IN 10' MAX SLOPE)

SLIDE SHOWN WITH 12"  
OVERHANG INTO POOL  
AND 90° STAIR LAYOUT

Natural Structures

P.O. BOX 270, BAKER CITY, OR 97814 PHONE: (541) 523-0224 FAX: (541) 523-0231



## Water Slide Model 1617

### Specifications

**Description:** Single 30" I.D. flume slide in a figure 8.

**Slide Run:** 104' 5"

### Features

- 30" inside diameter polyethylene flume
- Flume: color impregnated UV stabilized
- Stairs & platform: recycled plastic
- Stainless steel base plates, hardware and anchor bolts
- Designed with flexibility to allow for sloping pool decks
- 20 gpm water flow required
- Splash down dimension 13' x 20'
- Minimum water depth: 3'
- USA Made

**Platform Height:** 17' 6"

**Platform Size:** 6' x 6'

**Space Requirements:** 17' 5" x 32' 7" \*

### Options

- Deluxe Series: stainless steel polyester powder coated except the tower posts and stair channels, which are mild steel with chemical resistant Aqua-Kote undercoating and polyester powder coat topcoat.
- North Star Series: Mild steel with chemical resistant Aqua-Kote undercoating and polyester powder coat topcoat.
- Hot dipped galvanized available
- Stairs: (a) 7" rise, 11" tread, 36" wide; (b) 10" rise, 12" tread, 36" wide; (c) 48" width (d) Stair enclosures; (e) Inner handrails.
- Stair Configurations: Many variations available
- Gates: Locking gate to flume entrance.
- Flag and banner holders.
- Tower Roof: (a) Steel; (b) Wood; (c) Fabric; (d) Tongue & groove decking with the wood or steel roofs.
- Water pumps & covers
- Perimeter Fencing
- Factory installation or on-site technical assistance.



PO Box 270, Baker City, OR 97814  
(541) 523-0224 (800) 252-8475 Fax (541) 523-0231  
www.naturalstructures.com - info@naturalstructures.com

\*Space requirements may vary with options chosen.



FACSIMILE TRANSMITTAL SHEET

TO:	Aaron	FROM:	Leslie Maiwald
COMPANY:	Danmon Engineers	DATE:	2/1/2007
FAX NUMBER:	985-641-5950	TOTAL NO. OF PAGES INCLUDING COVER:	
PHONE NUMBER:	985-649-5832	SENDER'S PHONE NUMBER:	
RE:	Slide # 1617	YOUR REFERENCE NUMBER:	



NOTES/COMMENTS:

Dear Aaron:

Here is the plan drawing per our phone call, and I took the liberty of sending you the mirror image also. Together with a few other items of information.

Call with any questions,

  
Leslie Maiwald  
800-252-8475

P.O. BOX 270 BAKER CITY, OREGON, 97814  
[LESLIE@NATURALSTRUCTURES.COM](mailto:LESLIE@NATURALSTRUCTURES.COM) [WWW.NATURALSTRUCTURES.COM](http://WWW.NATURALSTRUCTURES.COM)



## Water Flow Rates

8/7/01

We have been getting requests for the speed of the water going into our pump intakes. All of our pump packages are set up for 3 ft per second or less. The following chart shows our standard pump packages and the flow rates.

<u>Pump Model Number</u>	<u>GPM</u>	<u>Number of Water intakes</u>	<u>Actual Flow Rate</u>
301-112 ½ hp	26.5	1	2.7 ft/sec
301-113 ¾ hp	32	2	1.6 ft/sec
301-114 1-½ hp	45	2	2.3 ft/sec

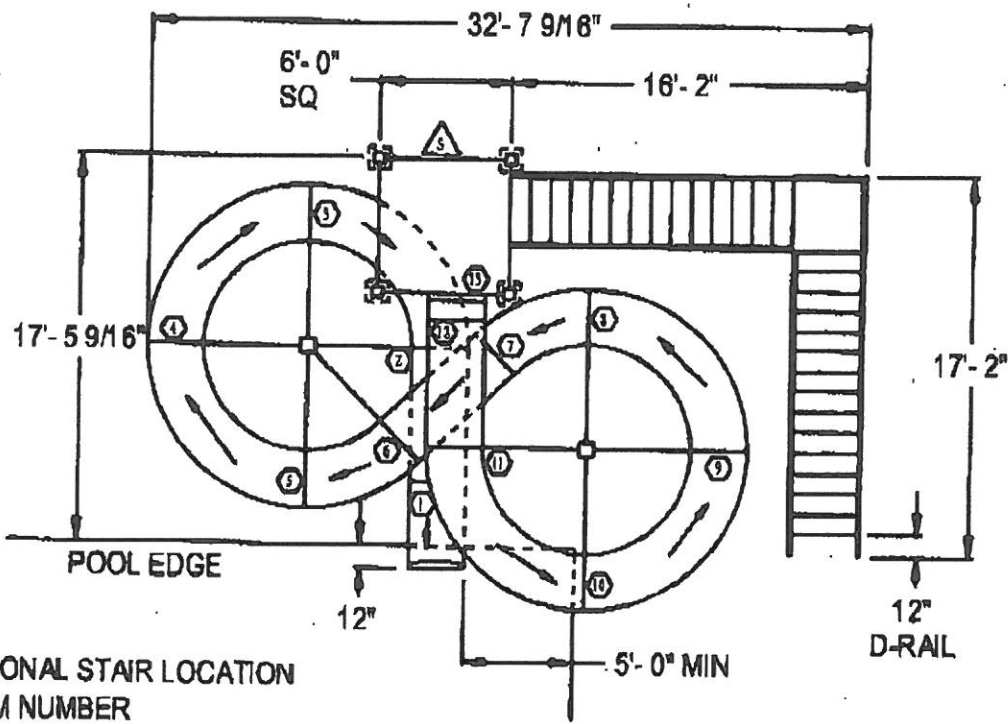
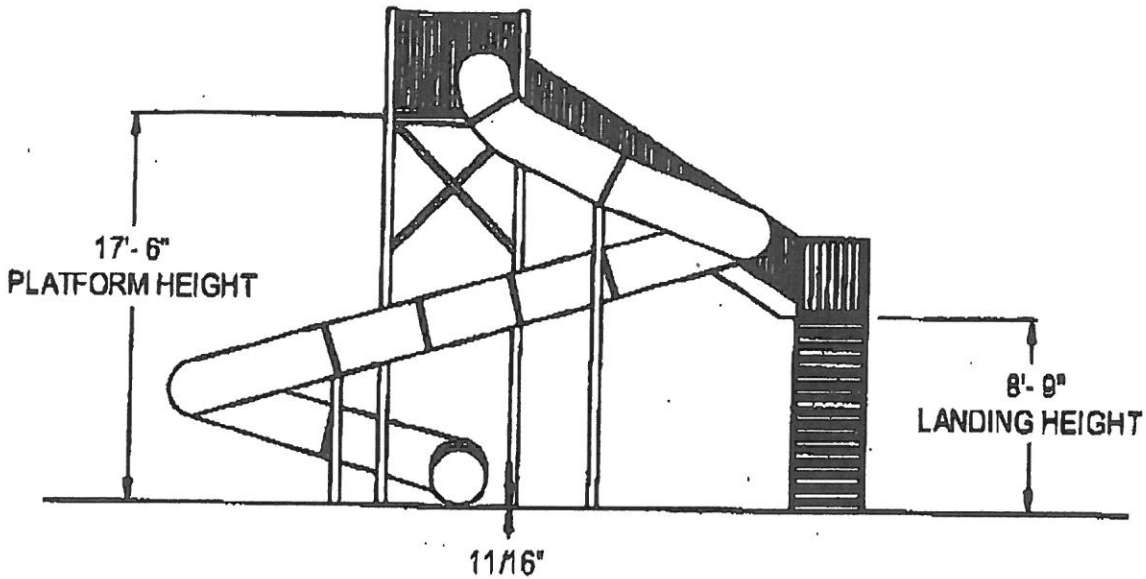
The following is some information on the water intake. It is 3-½" O. D. The intake attaches to 1-½" pipe. It has side openings and end openings. Total opening is 3.140625 square inches. It is rated at 68 GPM and UL Listed at 48 GPM.

Some states may request a slower flow rate. We are able to adjust the flow rate to meet their requirement by using more intakes or a larger intake.

Sincerely,

Ted Hausotter  
General Manager

P.O. BOX 727 • Sherwood, Oregon 97140  
(503) 625-2566 • FAX (503) 625-6664 • 1-800-252-8475  
[www.naturalstructures.com](http://www.naturalstructures.com)



~ PLAN VIEW ~

MODEL: 1617-RH66R53-0736E12  
 TOTAL RUN: 104'-5"  
 SIZE OF FLUME: 30" INSIDE DIAMETER  
 SLIDE PLATFORM HEIGHT: 17'-6"  
 SLIDE ENTRANCE HEIGHT: 18'-0"  
 STAIR CONFIGURATION: 7" RISE / 11" RUN (14 STEP/14 STEP) 36" WIDE

SCALE: 1/8" = 1'

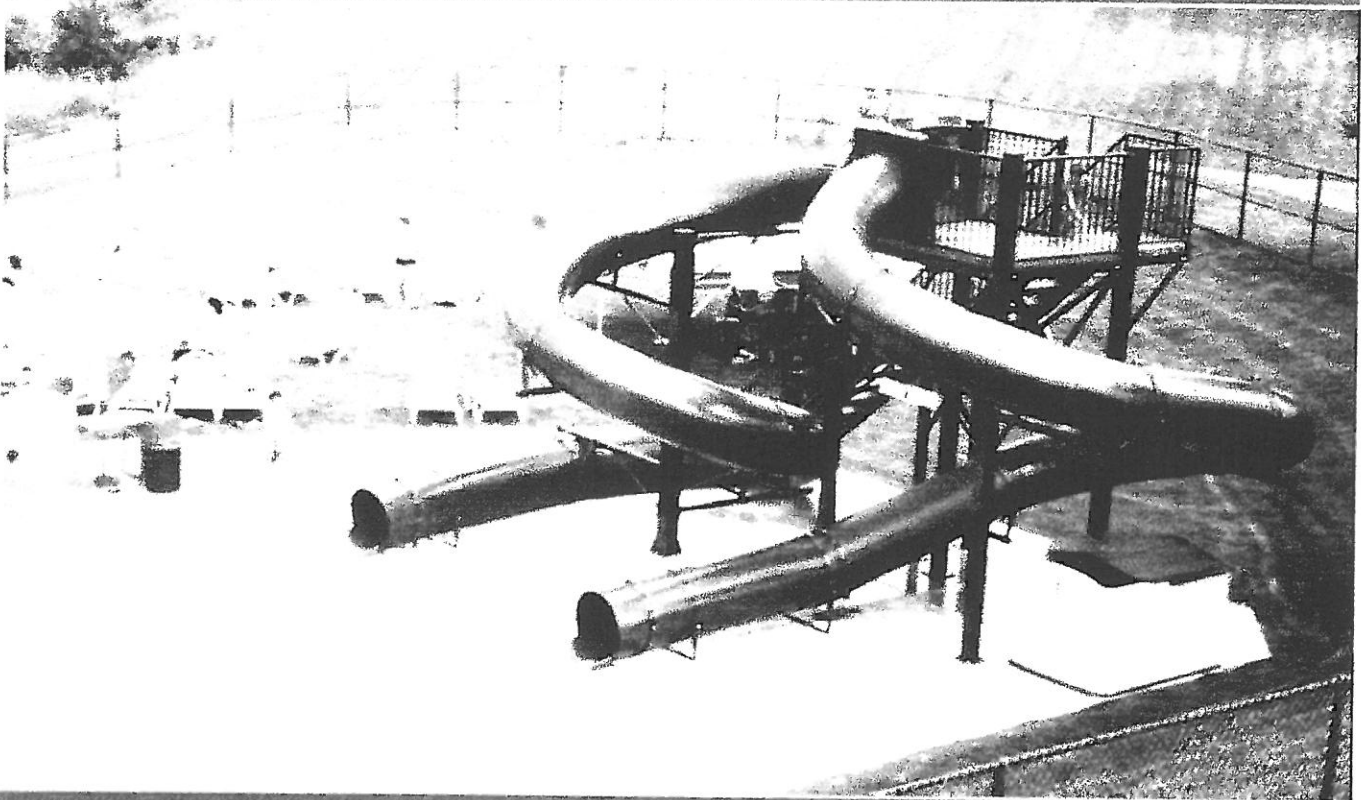
SPACE REQUIREMENT:  
17'-2" by 32'-7 9/16"

SLIDE SHOWN WITH 12"  
OVERHANG INTO POOL  
AND 90° STAIR LAYOUT

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## Water Slide Model 1648

### Specifications

**Description:** Double 30" I.D. flume slide, one 360° and one 1¼ turn.

**Slide Run:** 75' & 71'

### Features

- 30" inside diameter polyethylene flume
- Flume: color impregnated UV stabilized
- Stairs & platform: recycled plastic
- Stainless steel base plates, hardware and anchor bolts
- Designed with flexibility to allow for sloping pool decks
- 20 gpm water flow (each flume) required
- Splash down dimension 27' 6" x 20'
- Minimum water depth: 3'
- USA Made

**Platform Height:** 14' 2"

**Platform Size:** 6' x 8'

**Space Requirements:** 24' 8" x 30' 2" \*

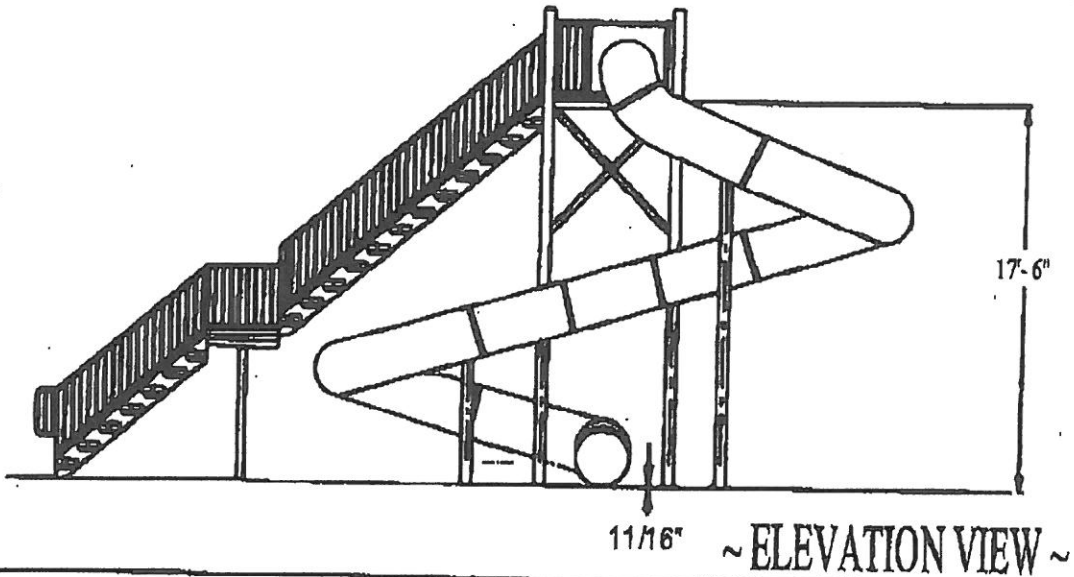
### Options

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- North Star Series: Mild steel with chemical resistant Aqua-Kote undercoating and polyester powder coat topcoat.
- Hot dipped galvanized available
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- Gates: Locking gate to flume entrance.
- Flag and banner holders.
- Tower Roof: (a) Steel; (b) Wood; (c) Fabric; (d) Tongue & groove decking with the wood or steel roofs.
- Water pumps & covers
- Perimeter Fencing
- Factory installation or on-site technical assistance.

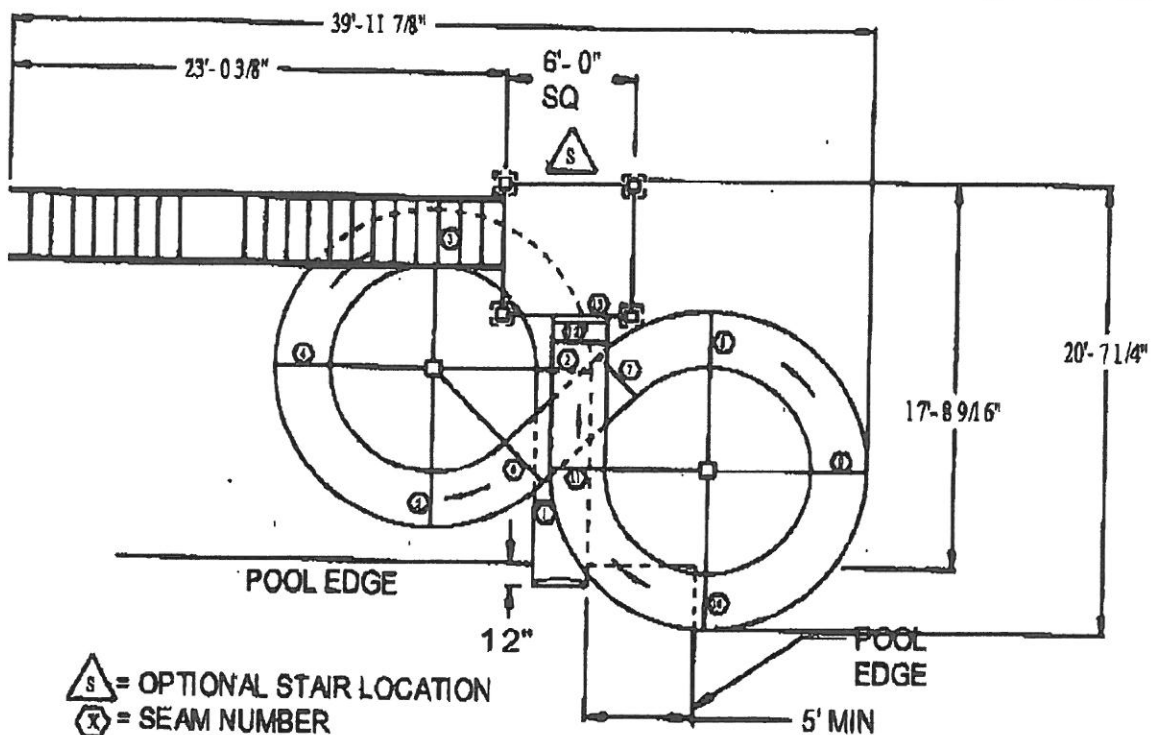
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www.naturalstructures.com - info@naturalstructures.com

\*Space requirements may vary with options chosen.



~ ELEVATION VIEW ~



~ PLAN VIEW ~

MODEL: 1617-RH66R24-1036E12  
 TOTAL RUN: 104' - 5"  
 SIZE OF FLUME: 30" INSIDE DIAMETER  
 SLIDE PLATFORM HEIGHT: 17' - 6"  
 SLIDE ENTRANCE HEIGHT: 18' - 0"  
 STAIR CONFIGURATION: 10" RISE / 12" RUN (12 STEP / 7 STEP) 36" WIDE

SCALE: 1/8" = 1'

SPACE REQUIREMENT:  
17'-9" BY 40'-0"

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FINAL 10' OF SLIDE 0° TO 5°  
(1" IN 10' MAX SLOPE)

SLIDE SHOWN WITH 12"  
OVERHANG INTO POOL  
AND 90° STAIR LAYOUT

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*Go with this 1/31/04*