

Rades Renaissance Fountain





Rades Renaissance Fountain est la première fontaine numérique du monde sur un pont a haubans qui est le premier du genre en Tunisie et en Afrique souhaitez le décoré avec une fontaine d'eau massive. La Fontaine nomme « Rades Renaissance Fountain » abat 52 tonnes d'eau par minute a la mer de chaque cote de pont avec ses 16 Pompes a eau de mer et 240 buses numériques sur les deux cotes qui attirent l'eau a partir de la mer 20 mètres en dessous du pont et les pousse dans la mesure de 30 mètres horizontalement.

La nuit, la couleur de la fontaine sera transformée en celle d'un arc en ciel par les 240 lumières qui rayonnent différents effets colores. La longueur totale de la fontaine atteint 240 mètres.

Cette fontaine est un effort pour relancer le golf de Tunis comme une attraction de classe mondiale pour les citoyens et les touristes et un nouveau symbole architectural pour la Tunisie.



Project Design



1. Généralités :

L'ensemble du projet comprend 240 buses, 16 pompes, 240 ensembles d'équipements numériques swing et 240 lumières sous-marines. Il ya 24 armoires électriques du modèle GGD 200x1000x600. La puissance totale est 930.4 kW

2. Equipement:

Collecte Buses :	240 pièces
Pompes :	16 pièces
Lumières :	240 pièces
Equipements de mouvement numériques :	240 ensembles
Cabinet Electrique:	24 cabinets

3. Puissance Total: 930,4 kW

4. Fonctionnalité d'eau:

Voici 7 fonctionnalité d'eau dans le projet, y compris le système hauteur d'eau.

5. Système de canalisation:

Conduites principale sont faites de tuyaux en plastique PE.

6. Lumière:

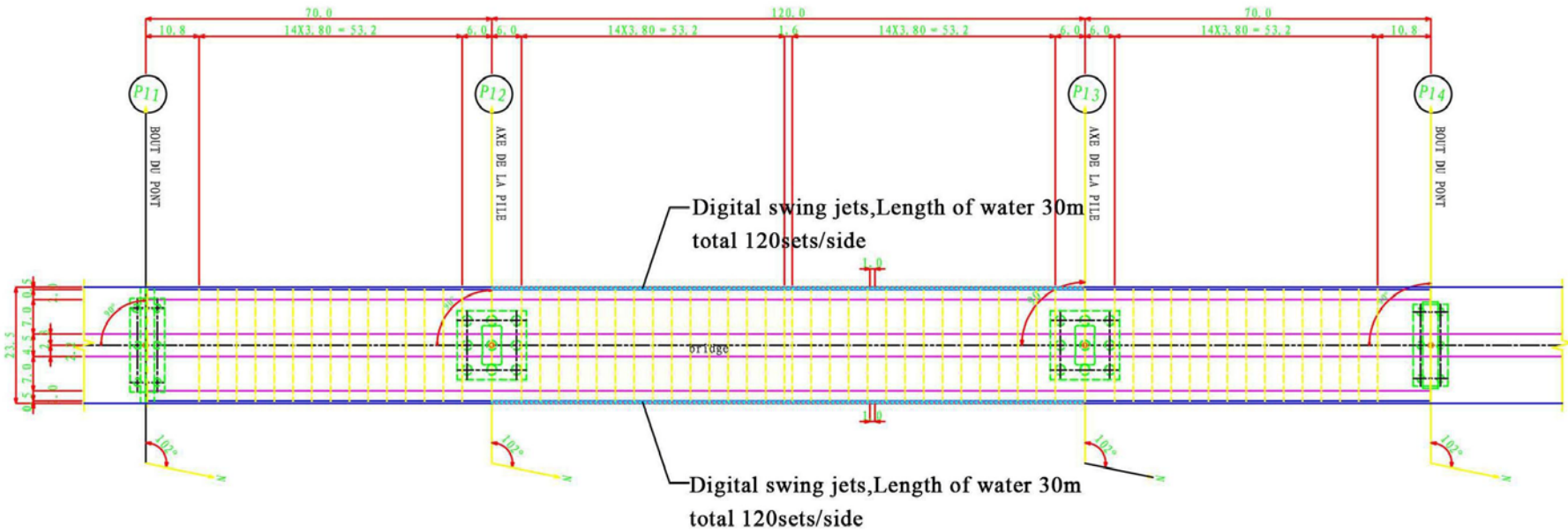
Power LED avec la couleur-altération réglementées sont utilisées dans le système.

7. Câble:

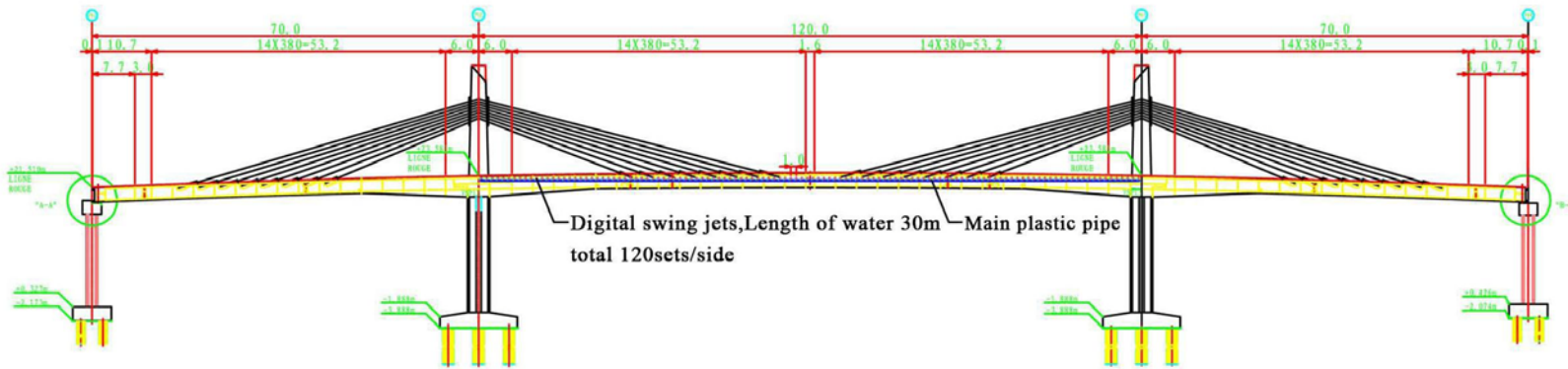
Submersible câbles imperméable de style YC sont utilisés.

8. Méthode de contrôle:

Programme de contrôle

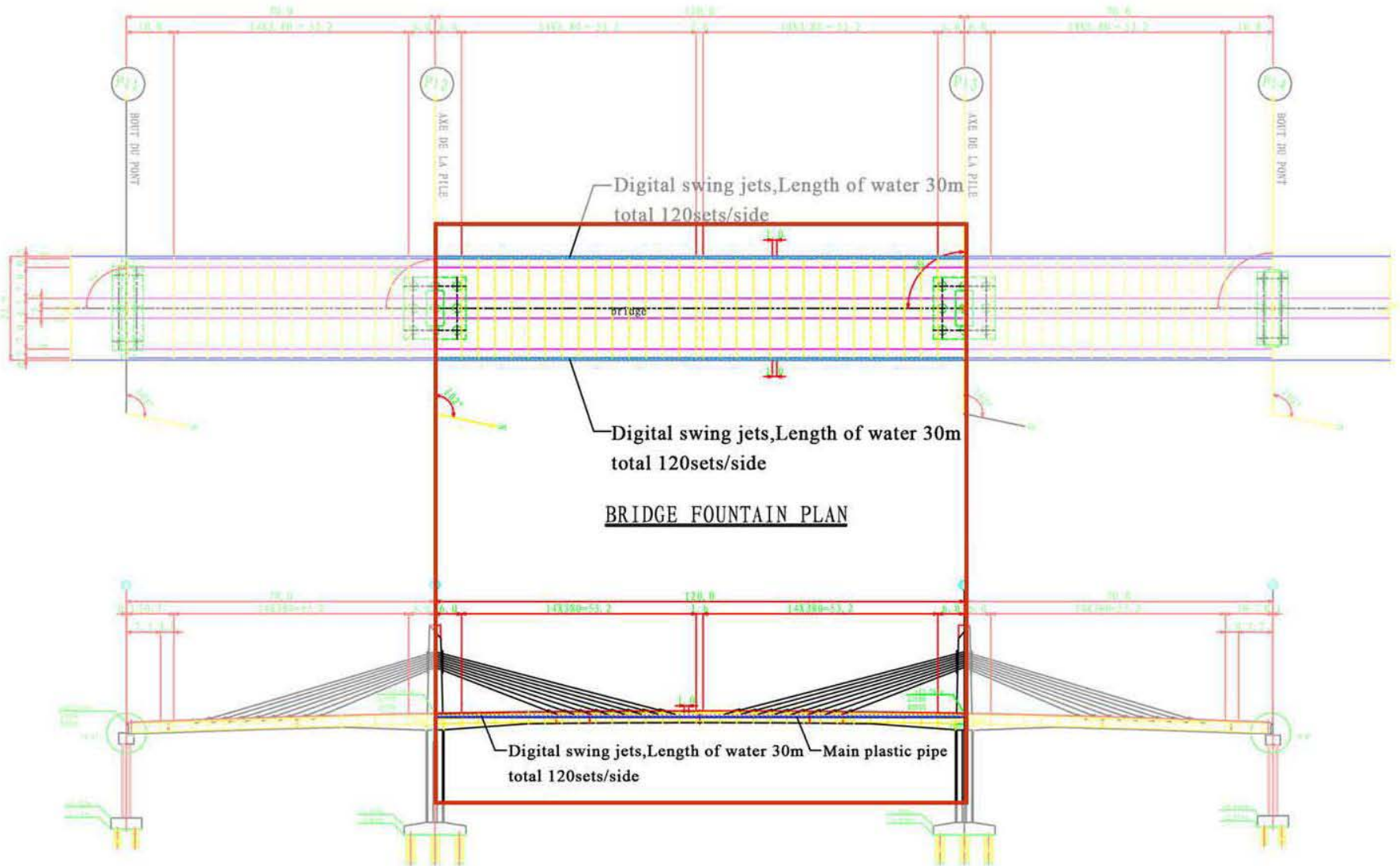


BRIDGE FOUNTAIN PLAN



SECTION

Rades Renaissance Fountain		PROJECT TITLE	
DESIGN PHASE		PROJECT NO.	
CHECKED BY		DWG. NO.	
DESIGNED BY		SCALE	
DRAWN BY		DATE	



SECTION

Rades Renaissance Fountain		PROJECT TITLE	
DESIGN PHASE		PROJECT NO.	
CHECKED BY		DWG. NO.	
DESIGNED BY		SCALE	
DRAWN BY		DATE	

Introduction d'équipements de la Fontaine



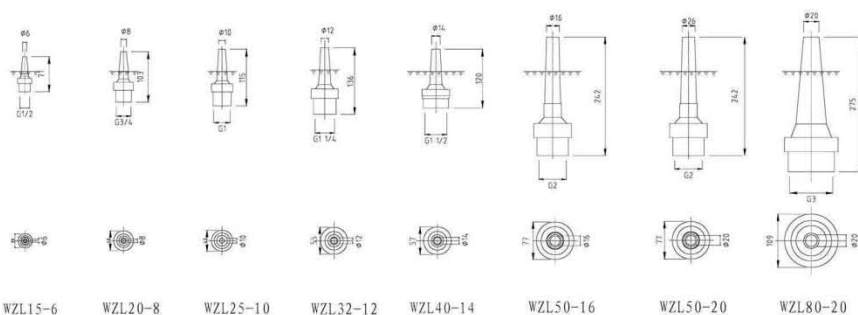
Buses de la Fontaine

Nozzles for Fountain

Adjustable Jet Nozzles Universal Types

喷头型号/Model	WZL15-6		WZL20-8		WZL25-10		WZL32-12		WZL40-14		WZL50-16		WZL80-20		WZL80-20	
接口尺寸/Connectio /Outlet dia.	G1/2"		G3/4"		G1"		G1 1/4"		G1 1/2"		G2"		G2"		G3"	
出水口直径 /Outlet dia.	6 (mm)		8 (mm)		10 (mm)		12 (mm)		14 (mm)		16 (mm)		20 (mm)		20 (mm)	
技术数据/Technology Data																
喷高 (m)/FH (m)	流量/DBB		流量/DBB		流量/DBB		流量/DBB		流量/DBB		流量/DBB		流量/DBB		流量/DBB	
	L/min	m	L/min	m	L/min	m	L/min	m	L/min	m	L/min	m	L/min	m	L/min	m
1.00	8.00	1.53	15.50	1.49	14.33	1.53	34.00	1.53	49.00	1.53	61.00	1.43	96.00	1.53	96.00	1.53
2.00	13.33	3.57	22.50	3.09	26.33	3.57	49.50	3.57	71.83	3.57	87.00	2.88	140.33	3.57	140.33	3.57
3.00	17.00	5.1	28.00	4.8	36.33	5.10	62.67	5.10	89.17	5.10	107.17	4.40	175.00	5.10	175.00	5.10
4.00	18.46	6.63	32.83	6.61	46.17	6.63	73.67	6.63	103.67	6.63	124.83	5.95	201.67	6.63	201.67	6.63
5.00			37.33	8.57	55.00	8.16	83.50	8.16	116.33	8.16	140.67	7.56	226.67	8.16	226.67	8.16
6.00				10.67	64.83	10.20	91.67	10.20	127.67	10.20	155.33	9.23	270.00	10.20	270.00	10.20
7.00					69.83	12.25	98.67	11.41	138.67	11.14	169.17	10.93	276.67	11.05	276.67	11.05
8.00					75.67	14.43	106.83	13.36	148.17	14.29	182.33	12.70	298.33	14.29	298.33	14.29
9.00							114.67	15.40	160.17	15.44	195.17	14.53	317.67	14.57	317.67	14.57
10.00							122.33	17.54	166.17	16.32	207.33	16.44	323.33	16.32	323.33	16.32
12.00									191.00	21.17	231.17	20.43	374.17	20.21	374.17	20.21
14.00											254.33	24.72	409.83	24.23	409.83	24.23
16.00											277.17	29.34	444.19	28.49	444.17	28.49
18.00													478.00	32.99	478.00	32.99
20.00													511.33	37.76	511.33	37.76
22.00													544.67	42.83	544.67	42.83
24.00													578.00	48.23	578.00	48.23
MA	铜镀铬/Chromeplate brass		铜镀铬/Chromeplate brass		铜镀铬/Chromeplate brass		铜镀铬/Chromeplate brass		铜镀铬/Chromeplate brass		铜镀铬/Chromeplate brass		铜镀铬/Chromeplate brass		铜镀铬/Chromeplate brass	
GW	0.15kg		0.21kg		0.40kg		0.51kg		0.75kg		0.85kg		0.85kg		2.60kg	
Id.-No. /产品编号	10-01		10-02		10-03		10-04		10-05		10-06		10-15		10-07	

FH=喷射高度(m)/Fountain height(m), DBB=喷头出水流量(L/min)/Nozzle water demand(L/min)
DDB=喷头出口压力(m)/Nozzle pressure demand(meter head), MA=材质/Material, GW=重量/Weight (kg)



Equipements de mouvement numériques

Water Swing Equipment

GCFT-132

One-Dimension Digital Swing Fountain Equipment

1D numerical controlled swing equipment controls nozzles and swing equipment by 1 underwater motor and gearing in 1-dimension. The angle and speed of swinging can be changed in a certain range. The pattern is widely extended and lively. The fountain is numerical controlled, freely changeable and exactly controlled to show the perfect performance.



Systeme de Controle:

Fountain Projects Summary

Control System

The control equipment which could be used in a music fountain control system includes electric switcher, plank card, remote I/O etc

It could be used various kinds of PIII above 128M, a display card above 1024X768, a sound card available. Because of the different control ways a special expansion slot may be required. The operating system could be WIN2000/WIN NT/WIN XP or others having a software for controlling a fountain.



Pompes d'eau:

Pumps for Fountain

Sea Submersible Pump

Waterlogged Submersible Pump can avoid water pollution from leaking oil; it can basically meet the demands of the pump as stated above.

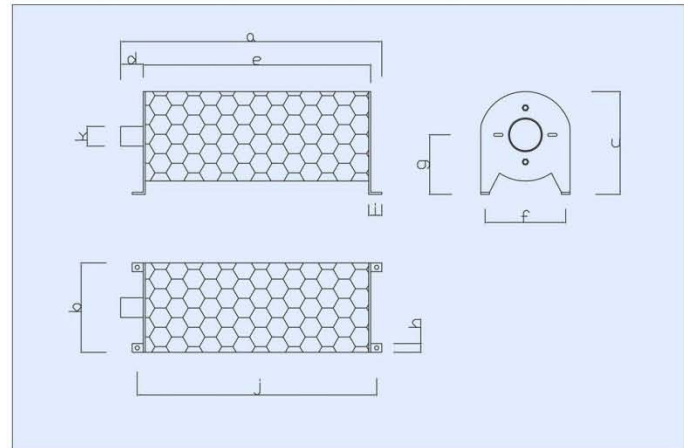
Type example: BJC1083-7-3

BJC—stainless steel special pump for fountain

1083—rated flux (L/min)

7—rated head (m)

3—rated power (HP)



Lumiere:

Other Fountain Attachments

Light-Emitting Diode

LED (Light-Emitting Diode) is more and more widely used in fountain and entertainment field. It has features of unique advantage, energy saving, low temperature and long service life. LED is the safest illuminating equipment. LED illumination is widely used with development of electric technology, and it starts a new phase in history. Underwater LED is safe and reliable; the service life is 50,000 hours; it supports many kinds of power supply input; it adopts unique sealing technology to work in depth of 4 meters. This LED series has single color type and 7-color type. Single color type can only produce single light, but the color can be selected in red, green, blue, yellow, or white. 7-color type can change colors through RGB theory. The RGB LED lights can produce 7 colors. Red and green can produce yellow; red and blue can produce pink, blue and green can produce cyan. Red, green, and blue LED lights are combined into white. 7-color LED also has auto-changed type and control-changed type. Auto-changed LED does not need control circuit, it can change colors seasonally. But the changing of colors is fixed. Control-changed LED can change colors through control circuit freely.



Devis de la Fontaine:

NO.	WATER FEATURE	NO.	DESCRIPTION	MODEL	UNIT	QTY	POWER	FOB CHINA		
								UNIT	TOTAL	
FOUNTAIN SYSTEM										
1	Swing jets L=30m) (HT.	1	Adjustable jet nozzle	WZL40-14	316 Stainless steel	pcs	240			
		2	Sea water submersible pump	BJC3333-60/3-73	Three phase, AC380 50Hz	pcs	16	880.00KW		
		3	pump cable	YC3*55+1*35	waterproof cable	m	3200			
		4	Power LED lights	PLED155F 6x1W-AC24V-S-A	AC24V, change colors	pcs	240	2.40KW		
		5	LED lights cable	YC2*1.5	waterproof cable	m	8000			
		6	Gate valve	DN150	316 Stainless steel	pcs	16			
		7	check valve	DN150	316 Stainless steel	pcs	16			
		8	Digital swing equipment	One-direction	316 Stainless steel	pcs	240	48.00KW		
		9	swing drive motor cable	KVV4*1.0	waterproof cable	m	48000			
		10	swing equipment single cable	KVV5*0.5	waterproof cable	m	48000			
		11	Stainless steel pipe	DN50	316 Stainless steel	m	72			
		12	Pump drink filter	DN200	installed in the pump room	pcs	16			
		13	Soft connection	DN150	installed in the pump room	pcs	16			
		14	Pressure meter		for displaying pump outlet water pressure	pcs	16			
		15	Other pump connections			set	16			
		16	PE plastic pipe connections			set	1			
		17	PE plastic pipe	DN150		m	624			
SUB TOTAL							930.40KW			
2	other equipments and control system	1	framework		Stainless steel	set	1			
		2	control system			set	1			
		3	Invertor	90KW		set	16			
		4	Electric cabinet	2200*1000*600	indoor cabinet	pcs	35			
SUB TOTAL							0.00KW			
SUB TOTAL							930.40KW			
3	Spare equipments	1	Adjustable jet nozzle	WZL40-14	316 Stainless steel	pcs	10			
		2	Power LED lights	PLED155F 6x1W-AC24V-S-A	AC24V, change colors	pcs	20			
		3	loop of solenoid valve	DN50	AC24V	pcs	20			
		4	Digital swing equipment	One-direction	316 Stainless steel	pcs	10			
SUB TOTAL							0.00KW			
technical service										
4	technical service	1	design fee							
		2	installation fee							
		3	animation fee							
SUB TOTAL										
TOTAL							930.40KW		US\$6,104,505.62	

NOTE: We estimate the length of each cable from control room to the fountain equipments in pond is 200 meters, so we supply 200m cable for each fountain equipment in the pond, and the length of each waterproof cable in the list is base on the estimate length, and it may be changed according to the actual distance by the customer.

Devis de la Fontaine sans systeme de mouvement numerique:

NO.	WATER FEATURE	NO.	DESCRIPTION	MODEL	UNIT	QTY	POWER	FOB CHINA	
								UNIT	TOTAL
FOUNTAIN SYSTEM									
1	Swing jets L=20m) (HT.	1	Adjustable jet nozzle	WZL40-14	316 Stainless steel	pcs	240		
		2	Sea water submersible pump	BJC3333-60/3-73	Three phase, AC380 50Hz	pcs	14	770.00KW	
		3	pump cable	YC3*55+1*35	waterproof cable	m	2800		
		4	Power LED lights	PLED155F 6x1W-AC24V-S-A	AC24V, change colors	pcs	240	2.40KW	
		5	LED lights cable	YC2*1.5	waterproof cable	m	8000		
		6	Gate valve	DN150	316 Stainless steel	pcs	14		
		7	check valve	DN150	316 Stainless steel	pcs	14		
		8	Stainless steel pipe	DN50	316 Stainless steel	m	72		
		9	Pump drink filter	DN200	installed in the pump room	pcs	14		
		10	Soft connection	DN150	installed in the pump room	pcs	14		
		11	Pressure meter		for displaying pump outlet water pressure	pcs	14		
		12	Other pump connections			set	14		
		13	PE plastic pipe connections			set	1		
		14	PE plastic pipe	DN150		m	576		
		SUB TOTAL							772.40KW
2	other equipments and control system	1	framework		Stainless steel	set	1		
		2	control system			set	1		
		3	Invertor	90KW		set	14		
		4	Electric cabinet	2200*1000*600	indoor cabinet	pcs	17		
		SUB TOTAL							0.00KW
SUB TOTAL							772.40KW		
3	Spare equipments	1	Adjustable jet nozzle	WZL40-14	316 Stainless steel	pcs	10		
		2	Power LED lights	PLED155F 6x1W-AC24V-S-A	AC24V, change colors	pcs	20		
		SUB TOTAL							0.00KW
technical service									
4	technical service	1	design fee						
		2	installation fee						
		3	animation fee						
		SUB TOTAL							
TOTAL							772.40KW		USD2,968,957.00

NOTE: We estimate the length of each cable from control room to the fountain equipments in pond is 200 meters, so we supply 200m cable for each fountain equipment in the pond, and the length of each waterproof cable in the list is base on the estimate length. and it may be changed according to the actual distance by the customer.

Rades Renaissance fountain

By Maamoun Gharsi