

# CIRCLE FLAMER

SHOWVEN TECHNOLOGIES CO., LTD  
[WWW.SHOWVEN.CN](http://WWW.SHOWVEN.CN)

# CIRCLE FLAMER

Two models:

CIRCLE FLAMER X-F1800

CIRCLE FLAMER X-F3600



**ORIGINAL**  
**i** **INNOVATION**





**Safety Distance**

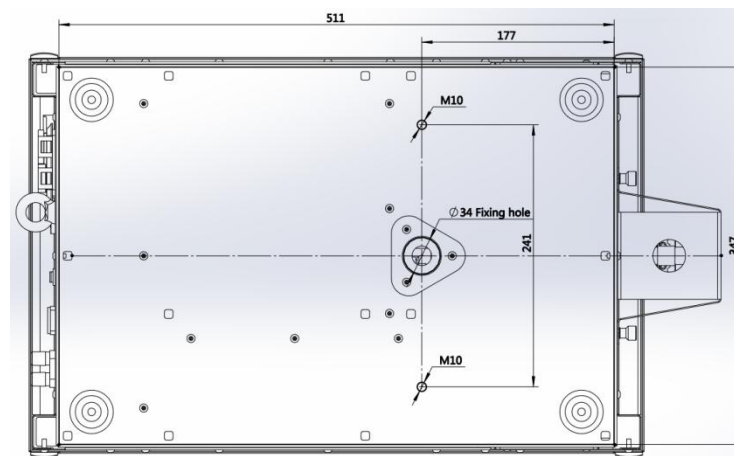
**15m** in all projection directions

**5m** in other directions

# Control panel overview



1. LCD screen operate panel
2. Safety Lock
3. Indicator Light
4. DC 5V output
5. 3-pin DMX socket
6. 5-pin DMX socket
7. 110V/220V Power socket
8. Fuse
9. ON/OFF switch
10. 12V Battery socket
11. DC 9V-60V fireworks igniter signal port



For X-F3600, please remember to remove nozzle protection cover before operation.

## X-F3600 vs X-F1800

MODEL	Circle Flamer X-F3600	Circle Flamer X-F1800
Rotation Mode Switch	FULL CIRCLE MODE / HALF CIRCLE MODE	NO
Effect Angles	1080° (up to 3 cycles)	210° (±105°)
Dimension	640 x 360 x 370mm	590 x 360 x 370mm
Input	AC100-240V, 50-60Hz	
Work Power	380W	
Interface	3-pin and 5-pin DMX; 9V-60V Fireworks igniter signal port	
Control	Standard DMX	
Effect Maximum Height	8-10m (no wind)	
Fuel	ISOPROPANOL ISOPAR G,H,L,M BIOETHANOL	
Fuel Bottle Capacity	10L	
Weight (no fuel)	30kg	
Fuel Consumption Rate	60ml/s (166s for a full tank of fuel)	

# **Characters and Specifications of CIRCLE FLAMER**

# Fluid Driven Flame System

Fuels can be used on CIRCLE FLAMER

## **ISOPAR G:**

Bright flame, very clear even in daytime

Safe, can't ignited in liquid status

There are dark smoke after burn

## **ISOPROPANOL:**

Bright flame

Few dark smoke

Can be ignited by fire

## **BIOETHANOL**

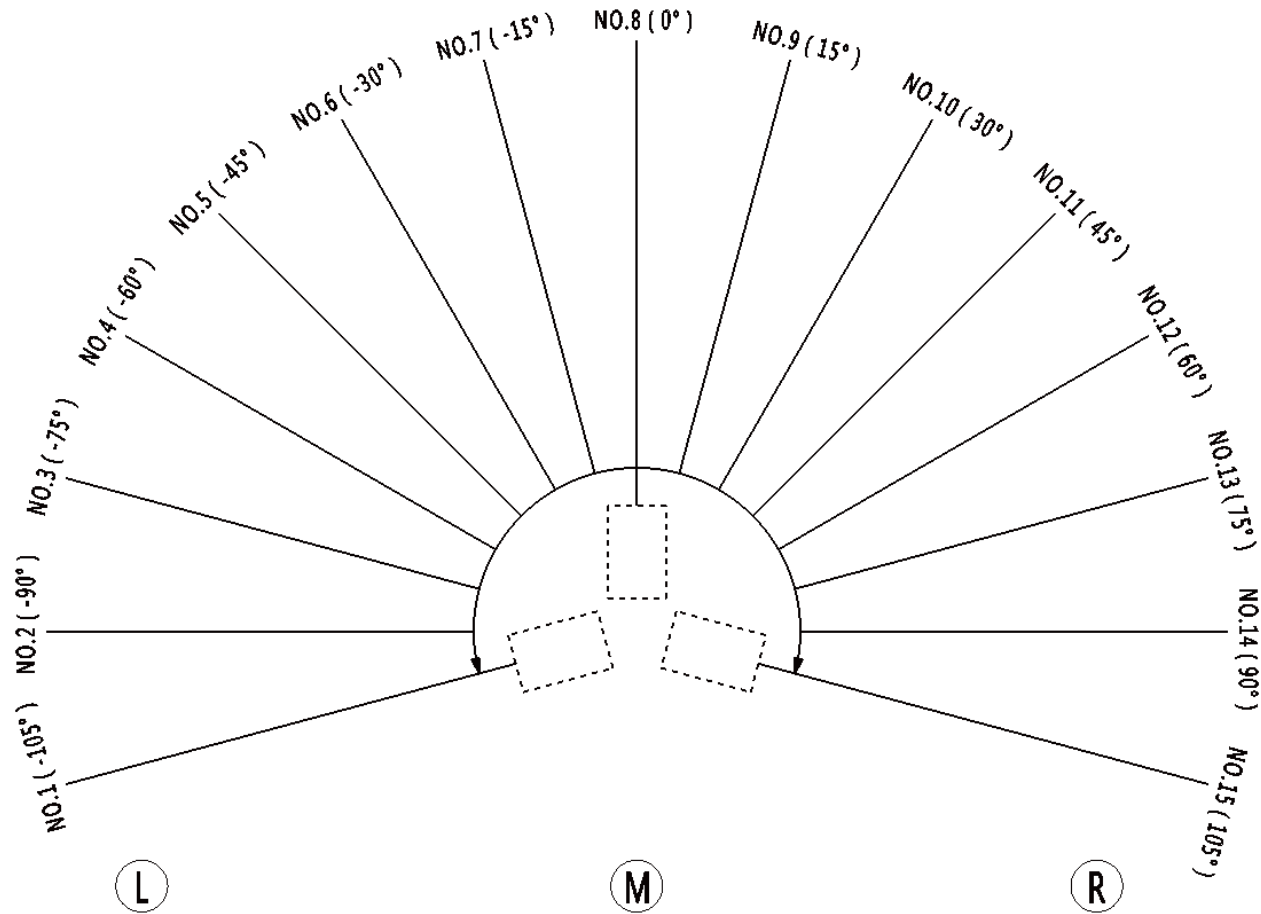
No smoke

Can be ignited by fire

Weak flame, not clear in daytime

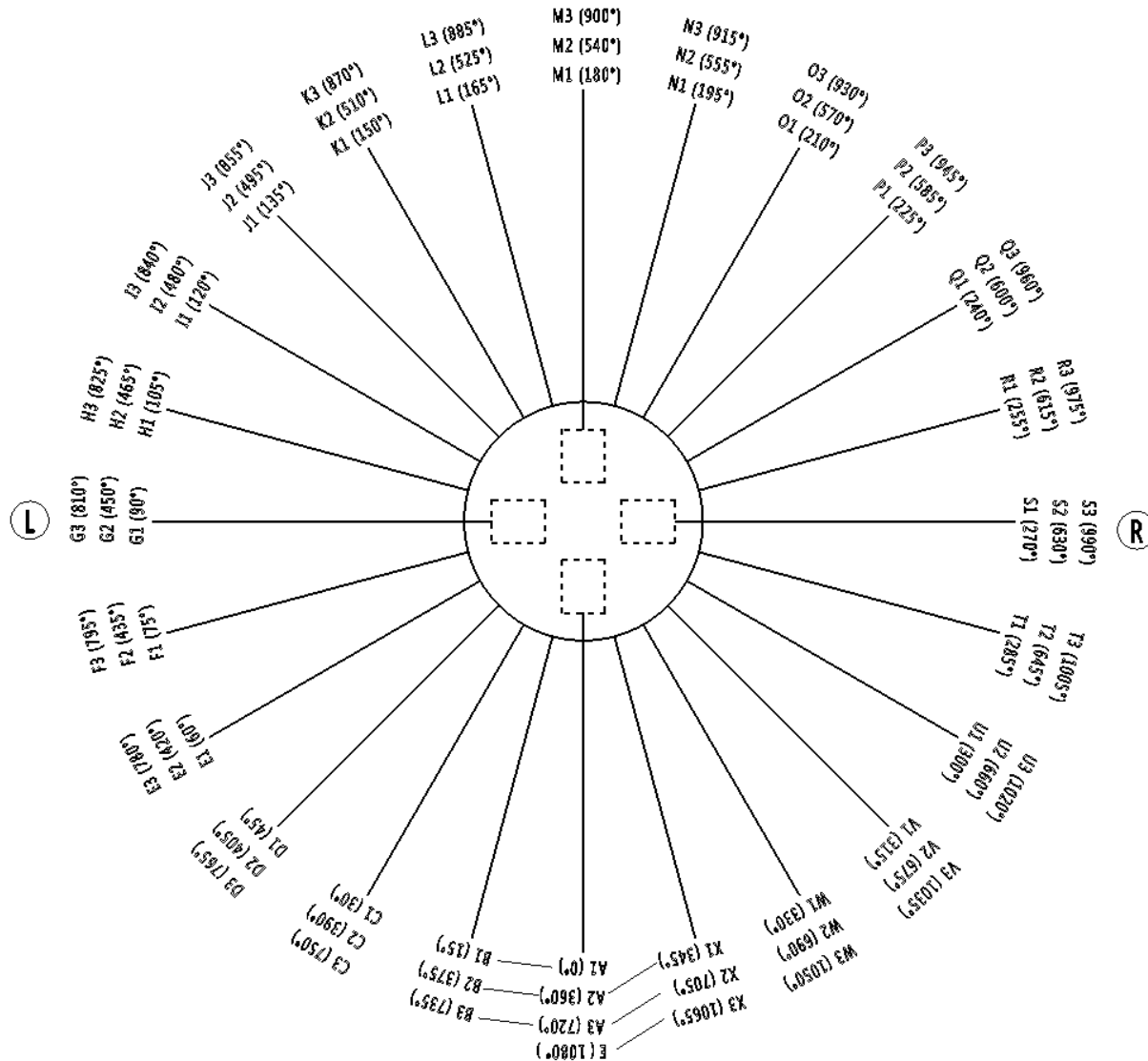


# X-F1800: 210° swiveling angles





# X-F3600: 1080° rotation angles (3 cycles)



## Built in pumping system

Everything needed is integrated inside the circle flamer, no need extra tanks or pumps to pressurize the machine. **Compact and easy installation.**

No need of extra gas tanks for fuel. **Safer for use.**

# Safety considerations

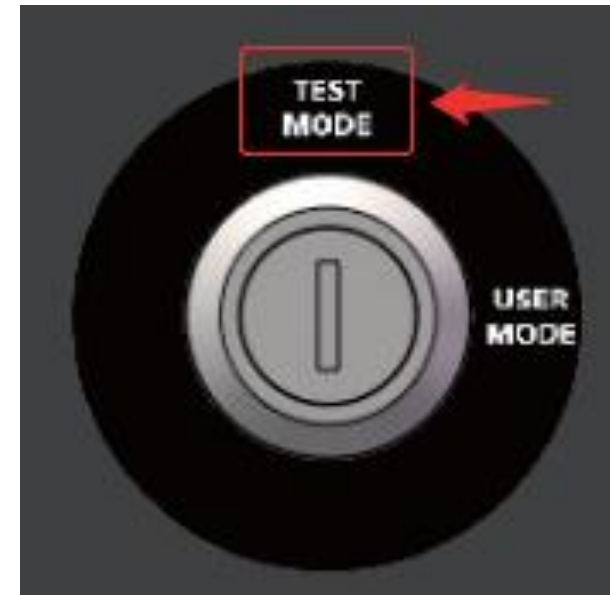
## Safety Lock

### TEST MODE:

For demo/service, pump not work, no flames generated

### USER MODE

Generate of flames if there are fuel available. remove all human, animal or flammable objects in the danger area before turns to user mode.



# Firing Angle Restrict

Set angle limit at main interface of CIRCLE FLAMER.

NOTE: X-F3600 with this function only when switch to "HALF CYCLE MODE"

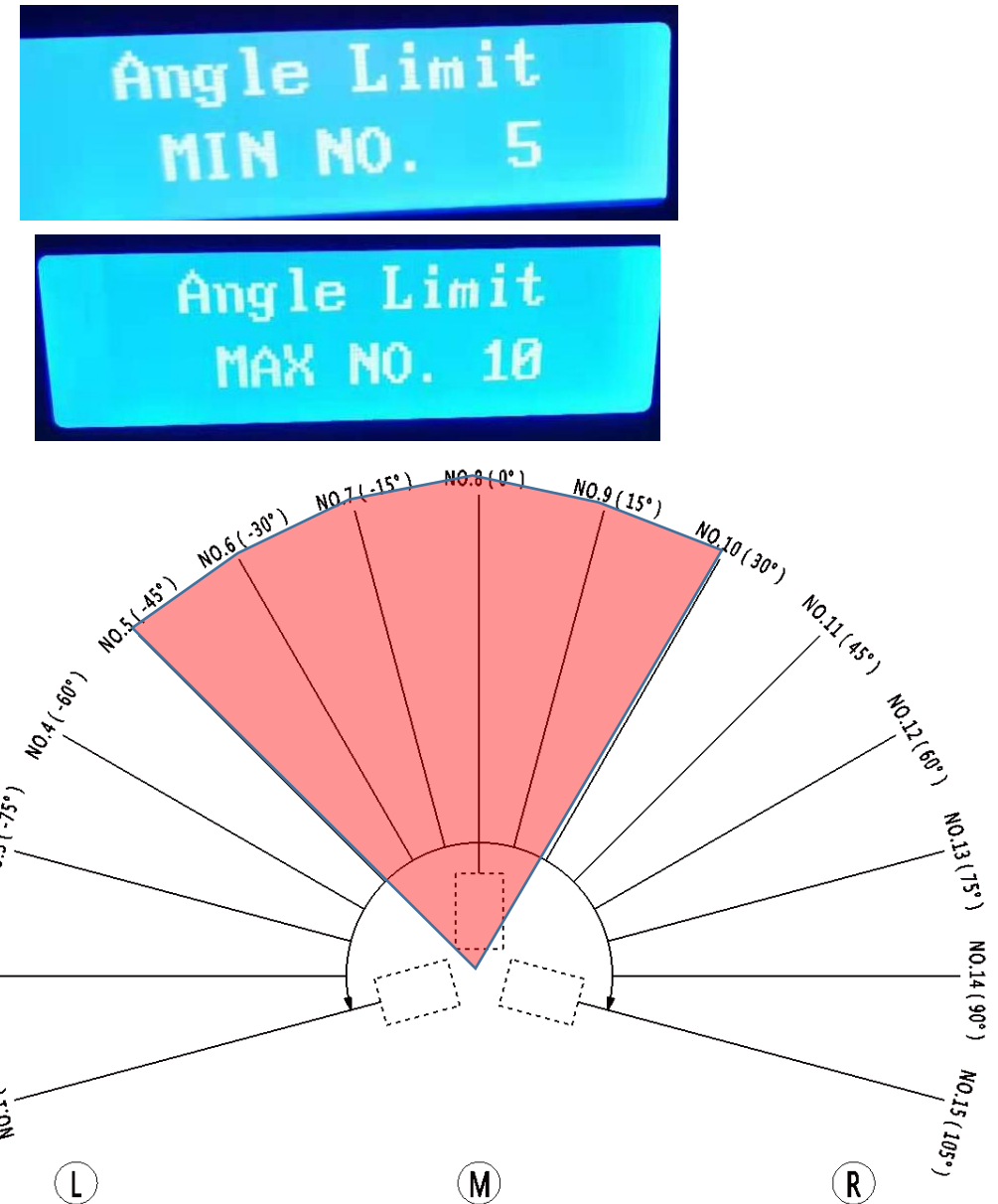
eg: if we set Angle limit MIN NO.5 and MAX NO.10.  
The nozzle of CIRCLE FLAMER are restricted to swivel between  $-45^{\circ}$  to  $30^{\circ}$ . (red region on the pic)

At this setup when you shoot sequence, the nozzle are restricted to move between the angle limit.

For example if we set Angle limit MIN NO.5 and MAX NO.10.

And we choose to shoot sequence No. 1 ( $-105^{\circ}$ ), the nozzle will not move and no ignition. If shoot sequence No. 8 ( $0^{\circ}$ ), it works.

If shoot sequence 31 (step from 1-15), the machine will shoot from 5-10 instead of 1-15.



## Double electromagnetic valves design

Double assurance for the generation of flames.

## Tilt protection

The tilt sensor will be activated when machine slant Over  $45^{\circ}$  , and machine will enter into emergency stop status.

# RDMX Function

RDMX function when used together with SHOWVEN original HOST CONTROLLER, to monitor the status of each machine.

Alert Message	Explanation
E0 System Lock	Safety lock located at TEST MODE
E1 Pressure Err	Pressuriser for about 13s, pressure value failed to reach 100%, system will report E1. Possible fault: No fuel, pump failure, pipeline problem etc.
E2 P Relief Err	Pipeline can't release pressure leads to pressure relief error. Possible fault: pressure release valve failure, pipeline problem or control system problem etc.
E3 Motor Err	Possible fault: swiveling nozzle stuck, motor failure etc.
E4 Ext Ignition	When Ext Ignite is ON, device will pressuriser automatically when switch safety lock to USER MODE; decompression when switch to TEST MODE. 9V-60V fireworks ignitor signal will trigger related firing sequences.
E5 Voltage Err	Battery voltage $>15V$ or $<10V$ for continuous 5s, machine stops running Possible fault: the battery is low
E6 Tip Err	if the machine slant over $45^\circ$ , it stops running, system will report E6
E7 Factory Mode	DMX signal blocked in factory mode

# Usability/compatibility design

## 3&5 pin DMX socket

Versatile for different request

## DC 5V output

Charging for wireless DMX

## Battery driven

Achieve real wireless, excellent for installations which hard to get access to main power supply

## 9-60V fireworks ignitor signal connectors

compatible with fireworks firing system, preset the firing sequence and activate with GALAXIS, FIREONE etc. firing system



## Built-in fuel tank

Compact and easy installation, no extra gas tanks needed.

# Complete preset flame sequences

X-F1800 with 88 preset flame sequences

X-F3600 with 182 preset flame sequences

Preset sequences covering from single ignition, step sequences, wave etc.  
Super easy to make fire show when combined with SHOWVEN original host controller by just entering the preset sequence No.

F1 MAIN									
Synchronizarion CIRCLE FLAMER No. 1-10 <span style="float: right;">🔋</span>									
FILE NO.	SEQUEN CE	FIRING DURTN	TRIG DELAY	REPEAT PERIOD	REPEAT COUNTS				
1	31	0.5s	0.0s	10.0s	1				
Terminal Monitor									
1	1	3	4	5	6				
7	7	9	10	11	12				
13	13	15	16	17	18				
from 1-15 Steppsequence short 2.4s									
MAIN		FILE SELECT		CONFIG		ABOUT			





# 110/220 switchable

Meet different power supply condition when make touring show



# Reliability/Durability



## **Stainless steel nozzle and panel**

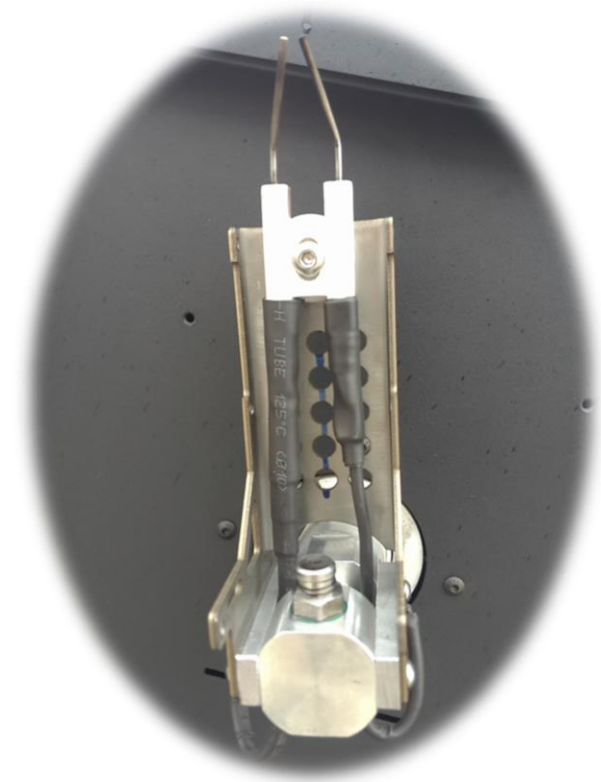
Durable and anti-rust  
Maintain good flame shape even after long time use

## **Neutrik PowerCON TURE 1 connectors**

Reliable parts

## **Dual pump and accumulator**

Powerful burst and stable pressure  
Consistent effect between different machine




**X-F3600 = X-F3600 + X-F1800**

Full / Half Cycle Mode switchable

X-F3600 can work as the same way as X-F1800, when it change to Half Cycle Mode



SetRotationMode  
Full Cycle Mode



SetRotationMode  
Half Cycle Mode

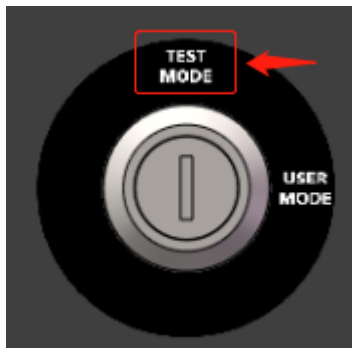
# Channels of CIRCLE FLAMER

Channel	Function
CH1	<b>Manual Angle setup:</b> (1) Full Cycle Mode: (0~255) angle change from A1(0°) to E(1080°), (128) is straight upward M2(540°) (2) Half Cycle Mode: (0~255) angle change from -105° to 105°, (128) is straight upward (0°)
CH2	<b>Manual Speed setup:</b> (0) Max Speed, (1~254) Speed increase, (255) Max Speed
CH3	<b>Ignition ON/OFF:</b> (0~253) Ignition OFF, (254~255) Ignition ON
CH4	<b>Firing Duration setup:</b> 0 and 255 is permanent fire (10s is limit duration time); 1~254 is 10~2540ms duration time (Manual firing duration = DMX Value * 10ms)
CH5	<b>Program sequence setup:</b> (0-2) no preset sequence; (3-255) preset sequence. DMX value = 2 + Sequence No.*2.55 (ROUND OFF) Detail information(CH5 DMX Reference Value) you can see the sequences list above.
CH6	<b>Firing Pressure setup:</b> (0~49) Pressure Relief Mode (Emergency Stop), (50~200) Pressure Armed Mode, (201~255) Pressure Relief Mode (Emergency Stop)

# Simple operation sheet

## Preparation

1. Installation - horizontal
2. Safety lock – Test mode
3. Fueling – castor oil
4. Power/DMX cable connection



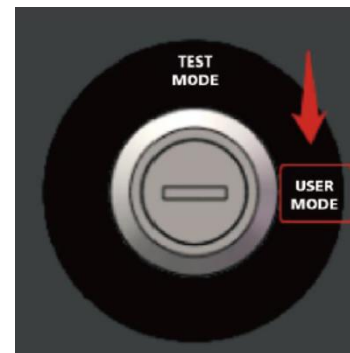
## Test

1. Switch ON
2. DMX Address – 6n-5
3. Pressuriser – preheat/ CH6 50-200
4. TEST
5. Pressure Relief



## Firing

1. Safety Lock – User mode
2. Pressuriser – preheat/ CH6 50-200
3. Firing – Firing/CH3 254-255
4. Pressure Relief



## Power OFF

1. Safety Lock – Test mode
2. Power OFF



For more info please visit our official website:  
[www.showven.cn](http://www.showven.cn)

Any questions please feel free to contact:  
info@showven.cn

**THANKS!**