ROBE lighting s .r. o., Hazovice 2090
75661 Roznov pod Radhostem
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FORTE®

Forte means Excellence, Speciality, Strength. Our FORTE® certainly lives up to its name! With a choice of premium performance engines from our revolutionary TRANSFERABLE ENGINE technology, giving you the ability to maintain light quality, combined with a fixture packed full of specialist innovation, you have the luminaire ready to lead you into the future.

Light source

TE™ 1.000W White LED TRANSFERABLE ENGINE

Light output

up to 50.000 lm, 113.000 lx @5m, Cpulse™ special flicker free management for HD and UHD cameras, ready for 8K and 16K

Zoom range

5° - 55°

Effects

2 rotating gobo wheels, 2 color wheels, animation wheel, frost, iris, 6-facet circular and linear prisms, framing shutters

You can now choose between the TE™ 1.000W HP White LED Engine (HP – High Performance), producing the highest output possible, or the TE™ 1.000W HCF White LED Engine (HCF – High Colour Fidelity) for those requiring exception colour quality. Now you can fit either engine within the same fixture, without alignment or warranty issues, within five minutes! Without the expense, and complication of needing separate luminaires with differing sources, TRANSFERABLE ENGINES give you the right engine, in the right fixture, at the right time!

The revolutionary self-referencing, data capturing engines are all designed, developed and manufactured within our own factory (Robe patented technology). Performance has not been compromised, with the TE™ 1.000W HP White 6.700 K LED Engine producing a piercing 50.000 lm and the TE™ 1.000W HCF White 6.000 K LED Engine 35.000 lm with its exceptionally high inherent CRI of 96. The L70/B50 ratings of 50.000 hours, means longevity is assured.

Harnessing the strength of the self-referencing, data capturing TRANSFERABLE ENGINES, FORTE® has wide ranging 5 - 55 degree zoom capability to fulfil all your spot, wash and beam applications, contained within its class-leading 41 kg frame. Usual output loss at the narrow zoom setting is taken care of via our ingenious Robe Patent pending narrow zoom output boost, improving performance by over 15 %, giving you a dramatically increased output, perfect for sabre like beams.

Robe's new, cutting-edge, CMY colour mixing system provides beautifully smooth colour transitions. Combined with two colour wheels, CRI 80 and 90 filters (HP Engine), and a variable CTO from 3.000 - 6.700 K gives FORTE® total colour finesse.

The comprehensive, dynamic effects package includes; two fully indexable, rotatable gobo wheels each with 6 gobos using the fast change Robe slot and lock system; two stackable 6-facet prisms, one linear, one round; animation wheel and an ultra-fast motorized iris. The two rapid insert interchangeable frosts, a soft 1° and a medium 5° for silky smooth washes cover the entire zoom range of 5-55 degrees with no restricted range cut off.

FORTE® gives you total control via our ultra-precise patented PLANO4™ framing shutter system, with separate blade control and the entire assembly capable of +- 60° rotation; Cpulse™ PWM control and direct ChromaTint™ Plus/Minus Green control for broadcast precision; EMS™ (Electronic Motion Stabiliser) technology, for instant stop and hysteresis elimination, making FORTE® the ideal fixture for RoboSpot™; L3™ (Low Light Linearity) dimming producing imperceptible fades to black.

FORTE® possesses a comprehensive protocol suite; USITT DMX 512, RDM, ArtNet, MA Net, MA Net 2, and sACN. REAP™ (Robe Ethernet Access Portal) is included for direct communication over Ethernet networks. DMX Wireless control is available on request. All this allows seamless integration into all control networks.

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Technical Specification

Source

- Light source type: TE™ 1.000W HP White LED Engine (Patented)
  - HP - High Performance Engine for maximum light output and optimal colour characteristics
  - LED Engine output: 82.000 lm
  - Fixture total lumen output:
    - 50.000 lm (integrating sphere)
    - 40.000 lm (goniophotometer)
  - Colour temperature output: 6.700 K
  - CRI: 70, remotely selectable filters for CRI 80 and CRI 90
  - Illuminance: 113.000 lx @ 5 m
- Light source type: TE™ 1.000W HCF White LED Engine (Patented)
  - HCF - High Colour Fidelity Engine for the best light quality and colour rendition
  - LED Engine output: 55.000 lm
  - Fixture total lumen output:
    - 35.000 lm (integrating sphere)
    - 28.000 lm (goniophotometer)
  - Colour temperature output: 6.000K
  - CRI: 96, TLCI: 97, TM-30-18 Rf: 92, TM-30-18 Rg: 99
  - Illuminance: 78.000 lx @ 5 m
- LED life expectancy: min. 50.000 hours
- Typical lumen maintenance: L70/B50 @ 50.000 hours
- Light source warranty: 4 years or 20.000 hours

Optical system

- Robe's proprietary optical design
- High-efficiency 13-lens zoom optical system, ratio: 11:1
- Zoom range: 5° - 55°
- Output lens diameter: 180 mm

Dynamic Effects and Features

- Cyan: 0 - 100%
- Magenta: 0 - 100%
- Yellow: 0 - 100%
- Variable CTO: 3.000K - 6.700K
- ChromaTint™ - Patented plus / minus green correction function
- Colour Wheel 1: 5 fixed dichroic colours + white
- Colour Wheel 2: 5 fixed dichroic colours + white
- Framing shutters: Patented Plano4™ framing shutters module with 4 individually positionable blades plus rotation of the complete frame system + - 60°
- Rotating gobo wheel 1: 6 rotating, indexable and replaceable breakup and aerial gobos + open, patented slot & lock system
- Rotating gobo wheel 2: 6 rotating, indexable and replaceable breakup and aerial gobos + open, patented slot & lock system
- MLP™ - Patented Multi-Level Prisms allow multiple prisms to be “stacked” while retaining individual speed and direction control. With variable shape and size it creates unlimited dynamic, multi-level flower and beam effects.
    - Prism 1: Independent 6 facet linear prism rotating in both directions at variable speed
    - Prism 2: Independent 6 facet circular prism rotating in both directions at variable speed
- Animation wheel: Aluminium animation wheel, used alone or in combination with gobos, rotating in both directions at variable speed
- Frosts: MagFrost™ - magnetic paddle fast change system providing exchangeable frosts containing as standard a very light 1° for instant softening of the projected gobo or framing shutters, and a medium 5° for even wash, both specifically selected for theatre and TV use
- Hot-Spot: From flat field to 6:1 hot-spot (optional)
- Iris: Motorized, stepless, pulse effects up to 3 Hz
- Motorized zoom and focus
- Electronic strobe effect with variable speed up to 20 Hz, pre-programmed random strobe & pulse effects
- High resolution electronic dimming: 0 - 100%
- L3™ - (Low Light Linearity) Imperceptible 18 bit dimming for ultra smooth fade to black
- Extremely quiet operation suitable for all types of production in Theatre and TV
- Cpulse™ special flicker-free management for HD and UHD cameras, ready for 8K and 16K
- AirLOC™ (Less Optical Cleaning) technology greatly reduces the level of airborne particles drawn over the optical elements. This increases the overall performance, light quality and time between routine cleaning and maintenance.

Control and programming

- Setting & Addressing: ROBE Navigation System 2 (RNS2)
- Display: QVGA Robe touch screen with battery backup, gravitation sensor for auto screen positioning, operation memory service log with RTC, stand-alone operation with 3 editable programs (each up to 100 steps), built-in analyser for easy fault finding, NFC app controller
- Protocols: USITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN
- REAP™ - Robe Ethernet Access Portal
- Wireless CRMX™ technology from Lumen Radio - on request
- Epass™: Ethernet pass through switch which sustains Ethernet integrity, when the fixture has no power, to automatically maintain network connectivity
- DMX Protocol modes: 1
- Control channels: 54
- Pan & Tilt resolution: 16 bit
- CMY & CTO: 8 bit
- + - Green correction: 8 bit
- Colour wheel positioning: 16 bit
- Framing shutters module movement & rotation: 8 bit
- Rotating gobo wheel positioning: 8 bit
- Gobo indexing & rotation: 16 bit
- Animation wheel: 8 bit
- Animation wheel rotation: 8 bit
- Iris: 16 bit
- Frost: 8 bit
- Zoom: 16 bit
- Focus: 16 bit
- Dimmer: 16 bit (internal 18 bit)

Movement

- Pan movement: 540°
- Tilt movement: 270°
- Movement control: Standard and Speed
- Controllable speed of Pan & Tilt movement
- EMS™: Electronic Motion Stabilizer system for Pan & Tilt reducing beam deviation caused by truss movement or vibration (Patented)
- Automatic Pan & Tilt position correction

Rotating gobos

- 12x fully rotating, indexable glass gobos on 2 wheels
- Outside diameter: 30.8 mm
- Image diameter: 25.0 mm
- Thickness: 1.1 mm
- Max. thickness: 3.5 mm
- High temperature borofloat or better glass
- Patented slot & lock system for easy replacement of gobos

Effect wheel

- Single animation wheel
- Material: Aluminium
- Diameter: 112 mm
- Can be used alone or in combination with rotating gobos
- Rotating in both directions at variable speed

Framing shutters system

- Patented Plano4™ framing shutters module
- Shutters: 4 Blades, each with separate movement and +- 25° rotation control
- Movement: Smooth with variable speed, ultrafast for creating mid-air effects
- Rotation: +- 60° of the complete framing system

Thermal specification

- Maximum ambient temperature: 45 °C (113 °F)
- Maximum surface temperature: 100 °C (212 °F)
- Minimum operating temperature: -5 °C (23 °F)
- Total heat dissipation: max. 3200 BTU/h (calculated)

Noise Levels

- Sound pressure level:
  - 21 dB(A) at 1 m (Super quiet mode)
  - 33 dB(A) at 1 m (quiet mode)
  - 44 dB(A) at 1 m (auto mode)
- Sound power level:
  - 29 dB(A) (Super quiet mode)
  - 41 dB(A) (quiet mode)
  - 52 dB(A) (auto mode)

Electrical specification and connections

- Power supply: Electronic auto-ranging
- Input voltage range: 100-240 V, 50/60 Hz
- Power consumption: max. 1250 W
- Power in connector: Neutrik powerCON TRUE1
- DMX and RDM data in/out: Locking 3-pin & 5-pin XLR
- Ethernet port in/out: RJ45 for Embedded Epass™ switch 10/100 Mbps
- USB connector (series A) for lightmaster purposes

Approvals

- CE Compliant
- cETLus Compliant

Mechanical specification

- Height: 843 mm (33.2") - head in vertical position
- Width: 483.5 mm (19")
- Depth: 335 mm (13.1") - head in vertical position
- Weight: 41 kg (90.4 lbs)
- Ingress protection rating: IP20

Rigging

- Mounting positions: 0°, 32°, 90°
- Universal operating position
- Mounting points: 5 pairs of 1/4-turn locking points
- 2x Omega adaptors with 1/4-turn quick locks
- Safety cable attachment point
- Pan & Tilt transport locks

Included items

- User Manual
- Omega Adaptor CL-regular 2 pcs: 10980033
- Power cord including powerCON TRUE1 In connector

Optional accessories

- FORTE TE™ 1.000W HP White LED Engine: 14080067
- FORTE TE™ 1.000W HCF White LED Engine: 14080072
- FORTE TE™ 1.000W TGW White LED Engine: 14080100
- Frost 0.5° (exchange) assembled: 10980581
- Frost 1° (exchange) assembled: 10980564
- Frost 3.5° (exchange) assembled: 10981037
- Frost 5° (exchange) assembled: 10980565
- Frost 10° (exchange) assembled: 10980556
- Frost 20° (exchange) assembled: 10980577
- Frost 30° (exchange) assembled: 10980582
- Top hat: 10980591
- Gel frame: 10980561
- Gel frame adaptor: 10981113
- Module of PC lens: 10980611
- Module of Fresnel lens: 10980610
- Hot-Spot lens in gobo holder: 10980557
- Doughty Trigger Clamp: 17030386
- Omega Adaptor Tall CL-regular 2 pcs in box: 10980501
- Safety wire 50 kg: 99011957
- Single Top Loader Case: 10120267-01
- Dual Top Loader Case: 10120268
- Foam Shell: 20020395-01

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Legal

- FORTE® is a Trademark of Robe lighting s. r. o.
- FORTE® is patented by Robe lighting s. r. o. and is protected by one or more pending or issued patents

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Gobos&Colours

Rotating Gobo Wheel 1

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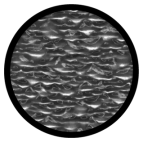
15020397

15020398

15020399

15020400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Rotating Gobo Wheel 2

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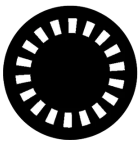
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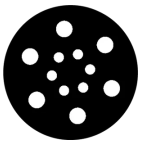
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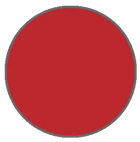
Colour Wheel 1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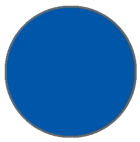
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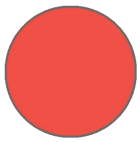
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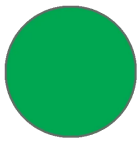
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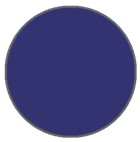
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Colour Wheel 2

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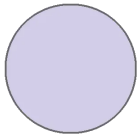
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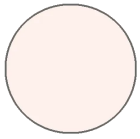
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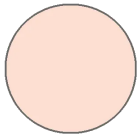
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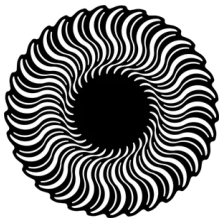
Animation Wheel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