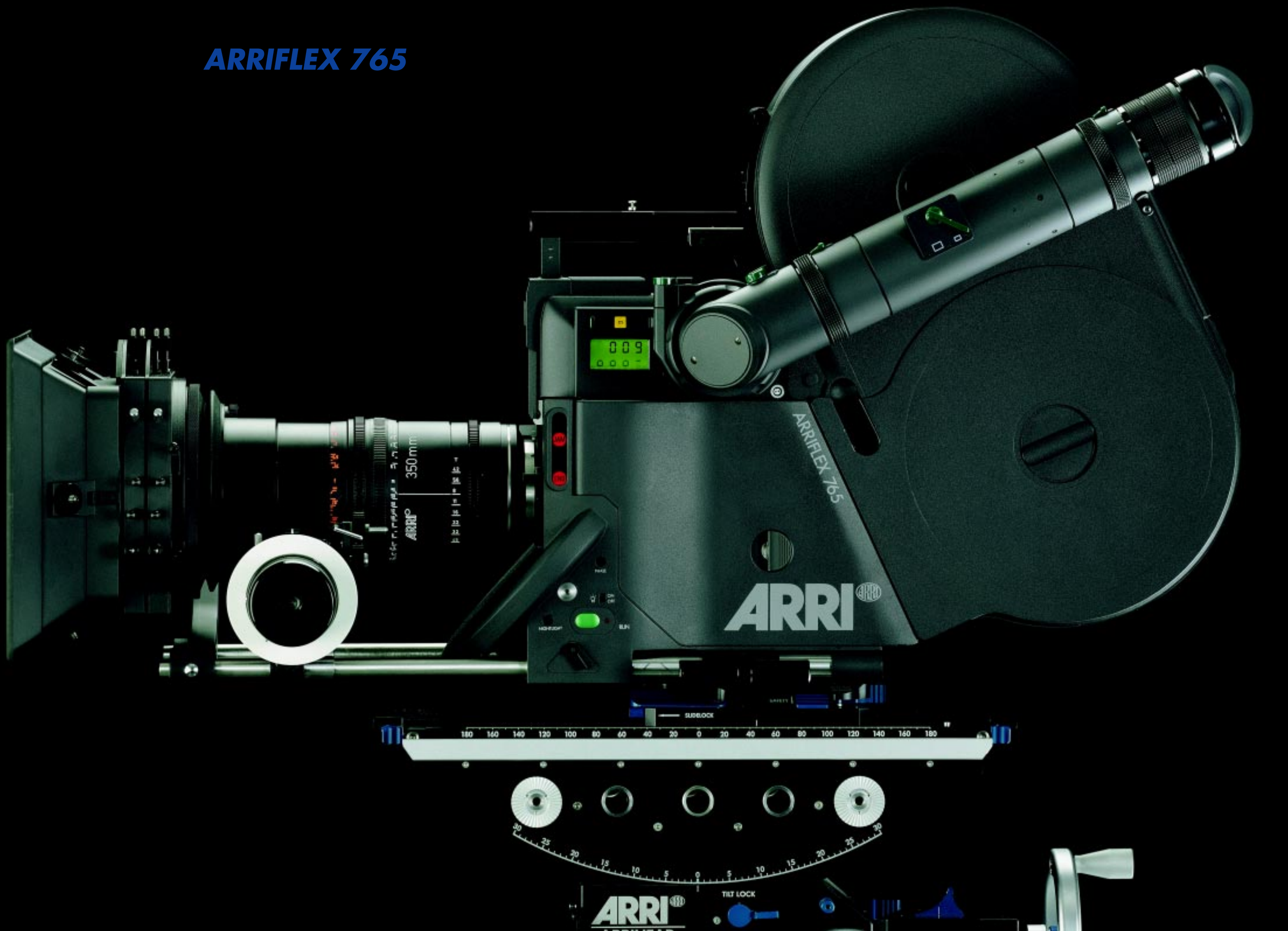
ARRIFLEX 765



ARRIFLEX 765

The ARRIFLEX 765 represents the world´s leading camera concept for 65 mm cinematography.
This camera system was specifically designed for the user ergonomics of popular 35 mm motion picture cameras. It features a noise level under 25 dBA, full reflex mirror viewing, and a maximum operating speed of 100 fps. This new system re-presents the ultimate in modern opto-mechanical technoloy. With these technologies the ARRIFLEX 765 will introduce a new era in cinematography for the big screen, with both shooting efficiency and superb photographic quality. This combination will be equally attractive to producers and cine-matographers of theatrical feature films and special venue attractions. The ARRIFLEX 765 system is presented as a tool that frees the motion picture world from technical limitations which hindered 65 mm production until now. With the ARRIFLEX 765, we have significantly expanded the envelope of creative possibilities available to filmmakers today.

THE CAMERA

The ARRIFLEX 765 employs a standard 65 mm frame, with a 5-perforation pulldown and projection ration of 2.2:1.
Originating on 65 mm film gives approximately three times more negative area than the 35 mm anamorphic format, and two and one-half times more than the Super-35 format.
The ARRIFLEX 765 was designed to achieve "35 mm ergonomics". Compact dimensions, lighter weight, and compatibility with lighter support systems make the ARRIFLEX 765 a truly mobile 65 mm system.

SOUND LEVEL
Less than 25 dBA at 24 fps.
Achieving a sound level below 25 dBA was a main design requirement for the ARRIFLEX 765. The two motor concept that separates movement and mirror shutter drives, also isolates vibration. The insulated multi-link movement transmits minimal vibration to the outer camera. The special barrel design reduces lens borne vibration while maintaining the mechanical link between lens mount and inner camera with utmost precision. The resulting sound reduction is exceptional.

REFLEX VIEWING SYSTEM
High aperture – flexible – 360° rotatable
Special surface coatings for lens elements and prisms provide exceptionally bright viewing. Both standard and extension viewfinders are 360° rotatable. Rotating prism guarantees upright image from all viewing positions.
The wide-angle heated eyepiece provides more comfortable viewing. The extension viewfinder´s 2x image magnifier and the camera´s pivoting contrast viewing filter are provided for critical viewing. A focusing screen with registered matte holder allows single frames to be viewed while filming effects scenes. Interchangeable video prisms provide a choice of light transmission ratings.

FILMING SPEEDS
2-100 fps crystal-controlled.

lities in a single camera. The film movement´s special ball-bearing elements and film loop geometry enable vibration-free running at very high frame rates.
Ten crystal-controlled speeds (including reverse) are standard. Remote control unit (RCU) provides crystal-controlled variable speeds, adjustable with an accuracy of 0.01 fps.

FILM TRANSPORT
Picture steadiness better than 0.1% of frame height. The patented, multi-link movement employs dual-pin registration and a dual 3-claw pulldown. This modular film transport (movement + sprocket wheels) provides excellent picture steadiness at all frame rates from 2 – 100 fps. At sync filming speeds, the quietest running of any 65 mm production camera is obtained, along with excellent horizontal and vertical steadiness.
Sprocket wheels and movement disengage for simple film threading. The movement pitch adjust-ment compensates for differences in film stock perforation pitch. An electronic inching control allows easy inspection of smooth film running and proper loop size. The automatic warning and auto camera shut-off prevent film roll-out.

ROTATING MIRROR SHUTTER
Electronically driven. Shutter angle variable from 15 – 180°.
Unlike previous belt-driven systems, the 765´s reflex mirror shutter is motor-driven and electronically controlled for exceptional accuracy and timing. The mirror shutter stops automatically in viewing position after camera shut-off. Fixed shutter openings are provided at 180°, 172.8° and 144°.

765 ELECTRONIC SYSTEM

The ARRIFLEX 765 possesses an innovative electronic control system. Movement, magazine, and shutter functions – previously belt-driven from a single motor – are now individually controlled by dedicated 24V DC motors. Together these functions are monitored by a powerful microprocessor – the camera main controller (CMC). This system guarantees both exceptional shutter timing and the under-one-second run-up time. The CMC also governs all indicators, sensors, and warning systems. This provides users more precise in-formation, faster and better than ever before in a 65 mm camera.
The camera´s electronic system is prepared for optical recording of SMPTE time code, and for connection of a modular CCD video camera. The integrated phase control allows filming of quartz-controlled TV/computer monitors.

CAMERA DISPLAYS
Instant information on camera status.
The left and right-side liquid cystal displays (LCD) provide indentical information:
Unexposed film count in feet or meters.
Shutter angle in degrees.
Exposed film count in feet or meters.
Camera running speed in fps.
Displays also report information from the camera´s warning system. Specific messages inform users exactly which camera function awaits preparation. The viewfinder display alerts operator of low film supply, low battery, and asynchronous running. The illuminated warning panel includes indicators for film end, low battery, asynchronous running, and film jam.

ARRIFLEX 765



THE SYSTEM

MAGAZINES

Light weight 1000 ft (300 m) and 500 ft (150 m).
The new open-channel throat enables quick and simple threading: loop length is adjusted inside camera. Two miniature torque motors guarantee smooth film supply and take-up.
Illuminated, LCD unexposed film counter displays feet or meters, and relays running count to camera displays. Magazine LCD´s function on independent lithium batteries.

LENSES

Zeiss/ARRIFLEX new series prime lenses: 30 mm – 350 mm.
The new prime lenses feature maximum apertures ranging from T2.1 – T4.2. The super wide-angle 30 mm provides 110° horizontal coverage. The 120 m provides a 1:4.5 macro reproduction scale. All lenses employ a 64 mm Maxi PL-mount.

Focal lengths

30 mm/T3.6	***120 mm/T4.2***
40 mm/T4.2	***150 mm/T3.0***
50 mm/T3.0	***250 mm/T4.2***
60 mm/T3.6	***350 mm/T4.2***
80 mm/T3.0	***700 mm*/T8.4***
100 mm/T3.6	****(with Mutar 2x range extender.)***
110 mm/T2.1	

MATTE BOX SYSTEM

ARRI swing-away 6.6" x 6.6".
The ARRIFLEX 765 employs the newest ARRI swing-away matte box, developed for both 65 mm and 35 mm systems. Uniform lens diameters allow the use of a single matte box for all lenses except the 30 mm/T3.6.
- Accomodated up to six 6.6" x 6.6" filters.
- New interchangeable filter stages are rotatable, and accept gear-driven frames.
- Provides same accuracy and flexibility as with 35 mm systems.

FOLLOW FOCUS

Two selectable speeds.
The universal follow focus mounts on standard lens rods, and accomodates all lenses in the system. It´s 2-speed, left and right side capability makes it the single indis pensable tool for lens control.

CAMERA SUPPORT

For ARRIHEAD or touch´n´go.
The ARRIFLEX 765 camera features an integrated quick-release bridge-plate. Camera attaches directly to ARRIHEAD sliding base or standard touch´n´go tripod head. Support rod holders are also inte-grated with the camera base.

CAMERA POWER

24-volt system: longer running times.
The new 24V DC power system better accomodates multiple electrical accessories and high speed filming. The system includes two 24V rubber-cased battery blocks, which provide significantly longer camera running times.
- 24V/7Ah block battery for normal operation
- 24V/14Ah block battery for filming above 60 fps.
The 110/220V AC power supply and 24V quick charger complete the power system.

DIAGNOSIS SYSTEM

Low maintenance
The ARRIFLEX 765 is a low-maintenance camera system. Specific message and error displays allow instant response to mechanical functions requiring adjustment. The modular design of mechanical and electronic elements allows the camera diagnosis unit to conduct swift and conclusive tests of the entire camera system.

ARRIFLEX 765 TECHNICAL DATA

Format: ..... 65 mm
Sound level: ..... <25 dBA at 24 fps
28.5 dBA at 30 fps
Picture steadiness: ..... 0.1% of frame height
At all filming speeds
Transport: ..... dual 3-claw pulldown
dual pin registration
Aperture: ..... 2.07 x 0.91 in, 52.50 x 23.00 mm
Ground glass/
Projection area: ..... 1.91 x 0.87 in, 48.50 x 22.00 mm
Projection aspect ratio ..... 2.2 : 1
Frame rates: ..... 12,15,24,25,29.97,30 fps
60,75,100, reverse 24 fps
2-100 fps crystal-controlled with remote control unit
Adjustable reflex mirror shutter: ..... 180°,172.8°,144°: preset
180°-15°: adjustable in 15° steps, preset
Viewfinder magnification: ..... 4x actual size,
8x with 2x image magnifier

Diopter range: ..... +/- 3 diopters
Contrast filter: ..... ND 0.6 integrated
Video prism: ..... 80/20 or 50/50 versions on request
Lens mount: ..... 64 mm diameter Maxi PL (positive-locking) mount
Flange focal depth: ..... 73.5 mm
Displays: Camera LCD´s: ..... unexposed film count, shutter angle,
exposed film count, camera running speed,
standby message, error message
Magazine LCD: ..... unexposed film count
Warning displays: ..... asynchronous running, low battery,film end,
jam, running lamp

External connections

In: ..... 24 V camera power remote control/variable speed,
external sync, time code,
diagnosis unit, shutter control
Out: ..... 2x24 V accessory connectors (1-switched, 1-unswitched)
heated eyepiece, video out

Motors: ..... 2x crystal controlled DC motors
for movement and shutter, 2 x magazine torque motors
Power requirements: ..... 24V/7Ah, 24V/14 Ah over 60 fps
Run-up time: ..... 0.8 seconds at 24 fps
2.5 seconds at 100 fps
Dimensions: with 500 ft magazine without lens: ... L = 22.4" (570 mm)
W = 14.6" (370 mm)
H = 15.7" (400 mm)
with 1000 ft magazine without lens: .. L = 24.8" (630 mm)
W = 14.6" (370 mm)
H = 20.9" (530 mm)
Weight: with loaded 500 ft magazine without lens: . Approx. 70 lbs, (32 kg)
Temperature range: ..... - 4° F to +122° F, (-20°C to +50°C)
Camera base: ..... Integrated quick-release

ARNOLD & RICHTER CINE TECHNIK
TÜRKENSTR. 89 • D-80799 MÜNCHEN • TEL. (089) 3809-0
TELEX 524317 ARRI • FAX (089) 3809 - 1244

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