HASSELBLAD H3D22 / H3D39

With the H3D, Hasselblad launches the world's first 48mm full-frame, DSLR camera system. The H3D has been developed around a brand new digital camera engine producing increased lens performance and a new level of image sharpness. By focusing solely on digital camera architecture, Hasselblad is able to offer photographers the full benefits of professional medium-format digital cameras as well as the ease of use of the best 35mm DSLRs.

The H3D design has also made possible the launch of a completely new 28mm lens, designed and optimized solely for digital image capture. Image quality is lifted to a level, yet unseen in digital photography, including digital correction for color aberration and distortion. The H3D delivers outstanding digital performance, taking full advantage of the virtues of medium format photography. The result is flexibility for the professional photographer, including the freedom to choose between eye-level and waist-level viewfinders, digitally APO corrected lenses, and on-the-fly classification of images. H3D offers the photographer the freedom to work with film to allow shooting under extreme conditions, and Hasselblad's Natural Color Solution delivers out-of-the-box image quality only achievable in a true digital camera system. The H3D camera is currently available with two different sensor models, offering image capture with a resolution of either 22 or 39 Mpixel.

Ultra-Focus and Digital APO Correction renews lens program

Information about the lens and exact capture conditions is fed to the camera processor for ultra-fine-tuning of the auto-focus mechanism, taking into account the design specifications of the lens and the optical specifications of the sensor. In this way the full HC lens program is enhanced to perform at a new level of sharpness and resolution.

Digital correction for color aberration and distortion is also added. "Digital APO Correction" (DAC), is an APO-chromatic correction of the images based on a combination of the various paramaters concerning each specific lens for each specific shot, ensuring that each image represents the best that your equipment can produce. We are confident that the image quality you achieve as a result of the DAC functionality will make you – and your customers – look twice.

Based upon these techniques we are now expanding our lens program with a specially designed 28mm lens that has been developed for the H3D. The design has been optimized for the actual 36x48mm area of the sensor to make it more compact and work in conjunction with DAC as an integral part to perfect the images from this extraordinary lens. The achievement is clear; DAC increases the resolution of the image, and with a perfect pixel definition, the basis for the image rendering is optimized.

The advantages of the central lens shutters of HC/HCD lenses adds flexibility by allowing flash to be employed at shutter speeds up to 1/800s. Thanks to the large format, the depth of field range is considerably shallower making it much easier to create a perfect interplay between sharpness and blur.

H System cameras and lenses are designed and built for durability and high quality performance, both for rough location work and for the demands of a studio photographer, something you notice the moment you hold the camera.

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Large format digital capture

In digital photography, the advantages of large format cameras become particularly obvious. The 6 x 4.5 cm window allows the Hasselblad H3D to use the largest image sensors currently available in digital photography – more than twice the size of a 35mm camera sensor. The sensor therefore holds more and larger pixels, which secure a high-end image quality in terms of moiré free color rendering without gradation break-ups in even the finest lit surfaces.

A choice of bright viewfinders

One of the important traditional advantages is the extra large and bright viewfinder image, enabling extremely precise compositions and easy operation in dim lighting. The H3D comes with a new HVD 90x viewfinder designed for full performance over the large 36x48mm sensor. Hasselblad has added an interchangeable waist-level viewfinder, the HVM, for the range of H system cameras. The bright and large viewfinder image is ideal for creative composing. The photographer can maintain eye contact with the model, and impact from shooting from a point lower than eye-level is achieved.

Unique Hasselblad Natural Color Solution

In the past, color management solutions have imposed limitations on professional digital photographers, because of the need to choose a specific color profile to suit a specific job in order to capture various skin tones, metals, fabrics, flowers, etc. Hasselblad has helped solve this dilemma, with the development of a single powerful color profile to be used with its FlexColor imaging software. Working with the new Hasselblad Natural Color Solution (HNCS) enables you to produce outstanding and reliable out-of-the-box colors, with skin tones, specific product colors and other difficult tones reproduced easily and effectively.

In order to incorporate our new unique HNCS and DAC features we have developed a custom Hasselblad raw file format called 3F RAW (3FR). The new 3FR file format is designed to ensure that images captured on Hasselblad digital products are quickly, effectively and safely stored on the available media. This file format includes lossless image compression, which reduces the required storage space by 33%. The 3FR file defines the colors in the Hasselblad RBG color space with its out-of-the-box quality, and used in conjunction with FlexColor it removes both the need for experimenting with different color profiles to obtain optimal colors and the need for selective color corrections.

DNG workflow

The 3FR files can be converted into Adobe's raw image format DNG ('Digital NeGative'), bringing this new technology standard to the professional photographer for the first time. In order to utilize DAC and optimize the colors of the DNG file format, conversion from 3FR must take place through FlexColor. The DNG file format enables raw, compressed image files to be opened directly in Adobe PhotoShop. Hasselblad image files carry a full set of metadata, including capture conditions, keywords and copyright, facilitating work with image asset management solutions.

Instant Approval Architecture

Limitless digital image capture loses some of its potential if the photographer cannot quickly review and select the best images to present to the client. Building on the success of its Audio Exposure Feedback technology, Hasselblad has created Instant Approval Architecture (IAA), an enhanced set of feedback tools, designed to liberate the photographer to focus on the shoot rather than the selection process. IAA triggers audible and visual signals for each image captured, notifying the photographer immediately of its classification status. The information is recorded both in the file and in the file name, providing a quick and easy way to classify and select images, in the field or in the lab. The Hasselblad H3D is fully integrated with the Hasselblad Instant Approval Architecture, bringing automated image classification into your digital workflow from the split second of capture. IAA is a Hasselblad trademark and Hasselblad has a patent pending on the invention. Large enhanced OLED displays on the new Hasselblad products provide a realistic, high quality and perfect contrast image view, even in bright sunlight, to allow instant on-site image approval.

Three modes of operation and storage

Optimum portability and image storage are critical for the professional photographer. The Hasselblad H3D offers a choice of storage devices: portable CF cards, the flexible Imagebank or a computer hard drive. With these three operating and storage options, you are able to select a mode to suit the nature of the work in hand, whether in the studio or on location.

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"Instant" user interface

The Hasselblad H3D is operated via an easy-to-use user interface, utilizing a series of "instant" one-button-click operations including instant capture, instant browse, instant approval, instant zoom, and instant image info.

FlexColor workflow for the professional photographer

FlexColor offers an image processing workflow with the highest degree of control for the studio photographer. In tethered operation, tools like overlay masking help bring productivity to advanced set composition. The latest FlexColor version allows the photographer to manipulate color temperature and compare image details across multiple images for precise image selection. FlexColor processes the raw 3FR files generated by the Hasselblad H3D. FlexColor runs natively on both Macintosh and Windows computers and is licensed to allow you to provide free copies for all your co-workers and production partners.

Modular design for flexiblity

The H3D offers the choice of working with film using a Hasselblad H System film magazine. This option permits photography in extreme temperature environments or when extreme exposure times are demanded.

For increased usefulness, the digital capture unit of the H3D can also be detached and used on a view camera by way of an adapter. In this case the unit is controlled by the flash sync signal from the view camera shutter.

A clean and dust-free sensor is essential and the modular design of the camera allows for easy access for cleaning, saving you hours of retouching work later.

Technical specification

SPECIFICATIONS DIGITAL FEATURES		
	H3D-22	H3D-39
Sensor size	22 Mpixels (4080 x 5440 pixels)	39 Mpixels (5412 · 7212 pixels)
Sensor dimensions	36.7 x 49.0 mm	
Image size	RAW 3FR capture 30 MB on average. TIFF 8 bit: 66 MB	RAW 3FR capture 50 MB on average. TIFF 8 bit: 117 MB
File format	Lossless compressed Hasselblad RAW 3FR	
Shooting mode	Single shot	
Color definition	16 bit	
ISO speed range	ISO 50, 100, 200 and 400	
Image storage	CF card type II (write speed >20 MB/sec), New Image Bank 100 GB or tethered to Mac or PC	
Color management	Hasselblad Natural Color Solution	
Storage capacity	2 GB CF card holds 66 images on average	2 GB CF card holds 40 images on average
Capture rate	2 seconds per capture	
Color display	Yes, 2.2 inch OLED type, 24 bit color	
Histogram feedback	Yes	
IR filter	Mounted on CCD sensor	
Acoustic feedback	Yes	
Software	FlexColor (included for Mac and PC)	
Platform support	Macintosh: OSX. PC: NT, 2000, XP	
Host connection type	FireWire 800 (IEEE1394b)	

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Technical specification, continued

SPECIFICATIONS DIGITAL FEATURES		
	H3D-22	H3D-39
View camera compatibility	Yes, controlled via flash sync.	
Operating temperature	0 - 45 ˚C / 32 - 113 ˚F	
Dimensions	Complete camera w. 2,8/80 mm lens: 153 x 131 x 200mm [W x H x D]	
Weight	2175 g (Complete camera with Li-Ion battery and CF card)	

SPECIFICATIONS CAMERA FEATURES	
Camera type	Large sensor full format DSLR
Lenses	Hasselblad HC lens line and HCD 28 with integral central lens shutter.
Shutter speed range	32 seconds to 1/800 second (18 hours to 1/800 second using film)
Flash sync speed	Flash can be used at all shutter speeds.
Viewfinder options	• HVD 90x: 90° reflex viewfinder w. diopter adjustment (-5 to +3.5D). Image magnification 3.1 times. Integral fill-flash (G.No. 12 @ ISO100). Hot shoe for SCA3002-system flashes from Metz™. • HV 90x: For use with film capture • HVM: Waist level viewfinder
Focusing	Autofocus metering with passive central cross-type sensor. Ultra focus digital feedback. Instant manual focus override. Metering range EV 1 to 19 at ISO 100.
Flash control	Automatic TTL centre weighted system. Uses built-in flash or flashes compatible with SCA3002 (Metz™). Output can be adjusted from -3 to +3EV. For manual flashes a built-in metering system is available.
Exposure metering	Metering options: Spot, Centre Weighted and CentreSpot. Metering range Spot: EV2 to 21, Centre Weighted: EV1 to 21, CentreSpot: EV1 to 21
Power supply	Rechargeable Li-ion battery (7.2 VDC / 1850 mAh). Optional cassette for 3 CR-123 Lithium batteries included.
Film compatibility	yes

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Connectivity diagram

Instant film back HMi100

HV 90x viewfinder

HVM viewfinder

Film back HM 16•32

HVD 90x viewfinder (included)

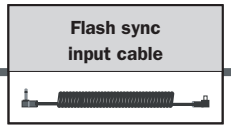
H3D Camera body

All HC lenses, including HCD 28, extension tubes and converter

H3D sensor unit (included)

Any shutter with X sync

View camera adapter for Hasselblad H cameras (not available from Hasselblad)



Any view camera with Hasselblad H adapter

Horseman ISS electronic shutter with lens control

Rollei electronic shutter with lens control

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H3D lens range

		
HCD 4/28 mm	HC 3.5/35 mm	HC 2.2/100 mm
		
HC 4/210 mm	HC 3.5/50 mm	HC Macro 4/120 mm
		
HC 4.5/300 mm	HC 2.8/80 mm	HC 3.2/150 mm
		
HC 3.5-4.5/50-110 mm	HC 1.7X converter	