

H A S S E L B L A D



Hasselblad H3D





## The Evolution of the H3D.

At Hasselblad we have always taken pride in finding new ways to use existing technology to push the photographic envelope, or – when that doesn't work – creating technology that will. In recent years the changes that have taken place in the photographic world – and the challenges they have brought with them – have made this more necessary than ever before.

Advances in sensor size, pixel quality and color fidelity have brought great changes to digital photography, increasing quality dramatically. Unfortunately, the improved end quality of images has been much more apparent in 35mm DSLR cameras than in high-end digital cameras and camera backs. The reason behind this is simple. The interaction between components in a true DSLR camera enables all parameters to be

optimized, resulting in a much higher level quality per pixel count. This “DSLR Advantage” has not transferred to high-end cameras. Until now.

The new Hasselblad H3D is not just the world's best DSLR camera – it is an entirely new kind of DSLR. A camera that combines the advanced digital communication and optimization of the best DSLRs with the quality and versatility of the Hasselblad system. A camera whose time has come.

The H3D combines the experience and digital advances gained with the H1D and H2D with an unprecedented level of flexibility and quality, previously unseen in DSLRs. It represents the combination of decades of photographic expertise and a keen understanding of the digital

experience. The result is not just another step in the evolution of a camera system. It is an evolutionary leap. You could say that the H3D is the camera we've been waiting over fifty years to produce.

Simply put, the H3D is the world's most advanced DSLR camera system. Which shouldn't come as such a surprise. We've been making the world's best cameras for quite some time. And we are still motivated by the same passion for photography that inspired Victor Hasselblad to invent the classic V system cameras. The Hasselblad tradition has always been one of innovation, of advances, and of unflagging dedication to quality. Hasselblad has never settled for “good enough”. And we don't think photographers should have to do so either.

That's why we made the H3D.



## Introducing the World's First 48mm, Full-Frame DSLR Camera System: The Hasselblad H3D.

The H3D represents an entirely new approach to integrated digital cameras. The H3D is the ultimate high-end DSLR camera system for professional photographers. Built around a ground-breaking new digital camera engine, the H3D takes photographic flexibility and image quality to new levels and enables unprecedented photographic benefits from the interaction between the various system components. With the H3D you get all the benefits of the previous H System cameras, plus increased lens performance and an unprecedented level of image sharpness. The H3D can outperform any professional digital camera system on the market today, delivering unmatched pixel resolution, better colors, and improved detail rendering.

### More than just the sum of the parts.

Unlike conventional medium format camera/back solutions, the innovative cycle of communication between lens and capture unit in the H3D results in a new level of image quality with a higher level of detail and true sharpness. This inter-communication lays the ground for Hasselblad's Digital APO Correction (DAC) and the new Ultra-Focus functionality, setting new standards for professional image quality.

### Largest format digital capture.

It's no secret that in digital photography, size still matters. The H3D's Full-Frame concept offers unique control of image composition and the large format light channel provided by the H3D enables the use of the largest image sensors currently available – 48x36mm – more than twice the size of even the largest 35mm camera sensors. These sensors hold more and larger pixels, ensuring ultra sharp images without gradation break-ups in even the finest lit surfaces.



### **Made to use.**

The H3D has been designed to bring the utmost in creative flexibility to your photography. By using the advanced communication inherent in the system, the unique design of the H3D design has paved the way for a completely new 28mm lens, especially designed and carefully optimized for digital capture with the H3D. This lens – the first of its kind in the digital world – brings image quality to an unprecedented level, and includes advanced digital correction for color aberration and distortion. Also, like its predecessors, 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.

### **Instant Approval Architecture – knowing what you’ve got.**

The H3D also features Hasselblad’s Instant Approval Architecture (IAA), an enhanced set of feedback tools designed to drastically simplify the image selection process so you can concentrate on your shoot. Audible and visible signals and recorded information in the file and the file name make classification and sorting quick and easy, whether in the field or in the lab. The Hasselblad H3D is fully integrated with the Hasselblad IAA, bringing automated image classification into your digital workflow from the split second of capture.

### **New waist-level viewfinder.**

One of the most popular features of the V System was the flexibility to choose between eye-level and waist-level viewfinders. Hasselblad has now brought this useful feature into the H System as well, with the launch of an interchangeable, waist-level viewfinder for the H system cameras. The large, bright viewfinder image is ideal for creative composing, and shooting from a lower than eye-level position opens creative possibilities. This viewfinder enables photographers to maintain eye contact with the model, a key advantage in portrait photography. With the H3D you get a choice of viewfinders – eye- or waist-level – an important flexibility for the professional photographer.



### **Better color, better workflow, better business.**

The H3D utilizes Hasselblad's new, powerful color technology, the Hasselblad Natural Color Solution (HNCS). HNCS works invisibly in the background in conjunction with FlexColor imaging software to produce outstanding and reliable out-of-the-box results, whatever the challenge, with skin tones, special product gradations, and other difficult colors reproduced easily and effectively.

In addition, the H3D uses Hasselblad's custom raw file format, 3F RAW (3FR), to ensure that images captured on Hasselblad digital products are quickly and safely stored, including the special color information necessary for the HNCS. 3FR files are stored using lossless image compression, reducing required storage space by 33%. The 3FR files can be converted into Adobe's raw image format DNG via FlexColor in order to utilize the Digital APO Correction and optimize the colors available within the

DNG file format. All H3D image files carry a full set of metadata, including capture conditions, keywords and copyright.

### **Workflow for the professional photographer**

FlexColor enables an image processing workflow that gives the highest degree of control for your studio photography. The latest version of the FlexColor software enables you to manipulate color temperature and compare image details across multiple images for precise image selection.

FlexColor uses the 3FR files and runs on both Macintosh and Windows computers and allows you to provide free copies to all your co-workers and production partners.

### **The 28mm HCD.**

The groundbreaking technology of the H3D has made possible a specially designed 28mm lens, expressly developed for this camera. The design has been optimized for the 36x48mm sensor area of the H3D, resulting in an extremely compact lens that can fully utilize the Digital APO Correction function and further increase the resolution of the image.



Full-Frame 28mm HCD lens – delivering unique, distortion-free image quality.



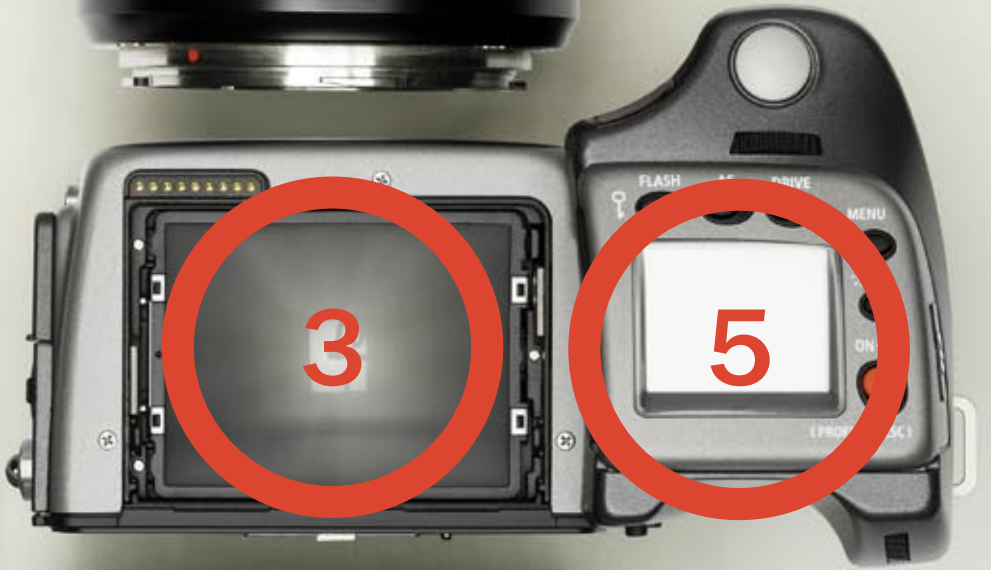
#### A new breed of DSLR. The H3D Advantage:

- Unmatched combination of quality and flexibility
- Ultra Focus: integral optimization of digital lens performance
- Digital APO Correction for improved distortion-free image quality
- 39 megapixels, Full-Frame digital 28mm wide angle shooting
- Hasselblad Natural Color Solution
- Choice of eye-level or waist-level viewfinders

#### Now it's in your hands.

Over fifty years ago, Victor Hasselblad designed the best camera system in the world. And in the ensuing decades, photographers used that system to create some of the finest photographic images man has ever produced. Images that encapsulated – and changed – the way we see the world around us.

Now, over half a century later, we've created an even better camera system. We can't wait to see what you do with it.





# The H3D camera system.

Just as the whole is more than the sum of its parts, buying a camera is not the same as buying into a camera system. When you buy a Hasselblad system you are buying into a total photographic approach. We are constantly developing new technology and new ways to enable improved communication between system components.

When combining Hasselblad lenses, viewfinders, capture units, and software with a digital Hasselblad camera, you are guaranteed a level of quality, functionality, customization, and flexibility unmatched by any other system in the world. And more importantly you are guaranteed that the quality of the images that come out of your camera will not betray the vision that went into it.

## **1. Viewfinders.**

Hasselblad viewfinders ensure that what you see is what you get. And when used together with our extremely bright focus-

ing screens, they make precise focusing, depth-of-field accuracy, and composition easier than ever before. The Hasselblad system includes a comprehensive range of viewfinders that match almost any condition or application and allow you to choose your composition format at will.

## **2. Lenses.**

The lens is the first – and perhaps most important – step in the technical side of the photographic process. The amount of light one can capture and how one captures it determines a great deal of the rest of the process. Hasselblad lenses are specially equipped to transmit complex image data throughout the system, enabling a wide range of advanced functions, such as Digital APO Correction, Instant Approval Architecture, and more.

## **3. Camera Housing.**

Hasselblad cameras are renowned for their ruggedness and durability and their highly efficient internal stray-light

protection. Built around high-strength aluminum cores and solid, stainless steel housing they ensure reliable and durable performance under even the toughest of conditions and for many years to come.

## **4. Capture and Control Unit.**

The Hasselblad capture and control units are designed to achieve stunning image quality and optimize workflow. Hasselblad provides three modes of storage, CF card, portable Image Bank, or straight to computer shooting.

## **5. Software.**

The software included with Hasselblad camera systems doesn't just provide a powerful post production toolkit, it provides remote hardware control, better workflow solutions, and the most accurate color reproduction in the world today. All software is designed to produce professional-level results on both Mac OS and Windows platforms.



# Photographic Flexibility.

With the Hasselblad H3D you can customize your style of shooting to suit your own specific form of photography – and then to change it the next day or the next minute as your needs change.

Because we think a camera should be as versatile as the people who use it.

## Exposure Flexibility.

The central lens shutter featured in all lenses enables you to use flash at high shutter speeds without shadowing effects. The ability to use flash sync at all shutter speeds provides both creative and practical flexibility.

## Composition Flexibility.

The H3D comes with a new HVD 90x viewfinder designed for full performance over the large 36x48mm sensor. With the H3D system, however, you have the choice of three different viewfinders – the analogue viewfinder, the digital viewfinder, and the classic waist level viewfinder – so can choose how you want to compose your shots.

## Sensor Flexibility.

The H3D is available in two versions, one containing a 22 megapixel sensor and the other featuring a sensor with a staggering 39 megapixel. You can choose an H3D to suit your specific resolution needs.

## Workflow Flexibility.

When importing images from your CF card or Image Bank you can choose the 3FR or a DNG workflow. With the 3FR you get all the expert tools provided by Hasselblad with the DNG you get a good mainstream solution.

## Lens Flexibility.

The outstanding range of Hasselblad HC lenses is suitable for both analogue and digital work. Hasselblad has also begun to provide HCD lenses, opening new creative opportunities, the first being the 28mm wide angle lens.

## Camera Flexibility.

The digital part of the H3D camera can be detached and mounted on a view camera, such as a Linhof or Sinar, giving you opportunities that are unrivalled by other camera manufacturers.

## Storage Flexibility.

The H3D operates with one of three media types; the CF card for maximum mobility, the Image Bank, for shooting many images quickly, and the tethered solution for studio operation. With these three operating and storage options, you can select a mode to suit your particular style of working.

## Capture Flexibility.

Film or digital? Your H3D is equally at home in either format, for whatever reason, creative or practical. The digital capture unit of the H3D can be detached and used on a view camera 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 to and cleaning of the sensor, saving you hours of retouching work later.



Viewing flexibility with new waistlevel viewfinder



Ultra fast storage with 100 GB Image Bank.



H3D-39 back with i-Adapter used on a view camera.

# Hasselblad Star Quality



**Certain key components define superior image quality:**

**Resolution, Sharpness, Natural Color, Clarity, and Detail.**

**All of these parameters play a significant role. No one parameter alone – or pair, or three – can provide superior image quality. To achieve utmost image quality, photographers need a system that excels in all five of these areas.**

### **Resolution.**

Why is “Bigger” still “Better”? Simply put, the more megapixels you have, the more accurate the details of your shot are and the lower the risk of moiré and other single-shot artifacts and the more correct your colors can be.

Hasselblad 39 megapixel sensors are more than twice the physical size of today’s largest 35mm sensors, producing the largest digital files currently available for professional photography. You may never need each and every pixel. But when you do need them, you’re awfully glad they’re there. Simply put, the higher your resolution, the more creative you can be with your images.

### **Sharpness.**

Image sharpness has always been one of the key identifying features of top-notch photography. The sharper the image and the clearer the detail, the more an image can be enlarged, digitally sharpened or creatively cropped. And the more pleasing they are to the eye.

The Digital APO Correction process, working only with the H3D and the Hasselblad H System lenses, enables even the most advanced optics in the world to be further improved, providing a level of image quality previously impossible. The Ultra Focus function of the H3D provides auto-focus fine tuning based upon the combined optics of the lens and the sensor.

### **Clarity.**

Finding optimal noise reduction techniques is a tricky science. Finding the proper balance between preservation of detail and clarity and the removal of unwanted static or “noise” from an image requires an understanding of both technology and of photography.

Hasselblad’s advanced noise reduction techniques are not just the rival of any other system, they achieve an optimum balance between desired richness of detail and noise-free imaging.

### **Natural Color.**

In the past, color management solutions have imposed limitations on professional digital photographers, forcing them to choose a specific color profile to suit each specific job and thereby sacrificing some colors to get others right. An unacceptable solution, in our opinion.

The Hasselblad Natural Color Solution accurately reproduces the full visible color spectrum – be it skin tones, special product gradations, and other difficult colors – easily and effectively. Every time and with the use of a single color profile. Simple, correct, and indispensable.

### **Detail.**

Nowhere is the art of balance more evident than when it comes to interpolation. Determining how to make jagged pixel lines smooth while maintaining color, clarity and sharpness demands the most advanced calculations and enough knowledge of photography to know which compromises are beneficial – and which are not.

The Hasselblad single-shot interpolation is the best available and it allows you to accurately reproduce details that have proved difficult for any digital system. Details such as single hair strands, small colored patterns, small text, and so on. With the H3D, you can rest assured that all every detail is preserved – and nothing is sacrificed.



Making the best even better.

**The world's first wide angle lens for a 48mm sensor.**

A specially designed 28mm lens, expressly developed for H3D, has now joined the Hasselblad lens range. This extremely compact lens has been optimized for the 36x48mm sensor area of the camera, and reaps full benefit of our Digital APO Correction, even further increasing the resolution of the image.



**The first step to perfect images.**

Images don't start out as ones and zeros and they're not born on film. They have to get there. And no matter how fantastic your digital system is, it can only capture the image your lens delivers.

The unsurpassed range of HC lenses feature extremely accurate and reliable central lens shutter designs, which expose the entire film area simultaneously, not scanning across the frame as focal plane shutters do, and allow flash sync at all shutter speeds, up to an astonishing speed of 1/800 sec. Focal plane shutters, on the other hand, can only use flash sync at shutter speeds less than 1/125 sec. HC lenses, give great flexibility in professional fill-in flash applications, helps solve troublesome lighting conditions, and open up a world of new creative opportunities.

Despite their durable design, Hasselblad lenses also have around twenty times less mass than focal plane shutters for the same frame size, which means that the shutter can react almost instantaneously when the release button is pressed.

Hasselblad lenses are also extremely quiet in operation and generate far less vibrations than focal plane shutters do, especially important for digital photography, producing sharper results and allowing you to shoot hand-held even at slower shutter speeds without sacrificing quality.



Shot by Claus-Peter Dudek

### Ultra-Focus and digital APO Correction.

In the H3D, information about lens and exact capture conditions are fed to the digital camera engine, enabling precise-fine-tuning of the auto-focus mechanism, taking into account the design of the lens and the optical specification of the sensor. This new feature brings a new level of sharpness and resolution to the entire HC lens program.

In addition, Hasselblad's patented digital APO chromatic correction feature enables you to get even more out of every lens. When using a complete Hasselblad system, this feature allows the mapping of each Hasselblad lens and the capture of advanced data, which are then used to perform an automated correction for color aberration and distortion on every shot, ensuring that every digital capture is automatically optimized to provide the

finest detail that a given lens can produce. And in a world where every image (and every pixel of every image) counts, we're sure that the results you achieve with our digital APO correction will make you – and your customers – glad you chose a Hasselblad system.



## H System

Platforms	Digital solutions	Sensors	Viewfinders	Film magazine	Lenses	Digital APO
H2	CF Back	22/39 Mpix	Eye/Waistlevel	Optional	HC Range	No
H3D	48mm Full-Frame DSLR	22/39 Mpix	Full-Frame Eye/ Waistlevel	Optional	HC Range+HCD	Yes

## V System

Platforms	Digital solutions	Sensors	Viewfinders	Film magazine	Lenses	Digital APO
503CW	CFV Back	16 Mpix	Eye/Waistlevel	Optional	Complete V Range	No
503CWD	36x36mm DSLR	16 Mpix	Eye/Waistlevel	Optional	Complete V Range	No

## Scanners

Scanners	Max res	Max speed	Dust removal	3F scan button	3F workflow	Feeder
Flextight X1	6300 dpi	60 MB/min	Software based	Yes	Yes	No
Flextight X5	8000 dpi	300 MB/min	Hard- & software	Yes	Yes	Yes



NEW  
MAGAZINE FROM  
HASSELBLAD!

Hasselblad is proud to announce the launch of VICTOR by Hasselblad, a truly innovative publication for professional photographers.

With a fresh editorial approach and featuring outstanding image and production quality, Victor will combine stunning photography with fascinating and insightful interviews and informative technical articles. To subscribe or get more information log on to

[www.victorbyhasselblad.com](http://www.victorbyhasselblad.com)

## Technical specifications

### Sensor size:

39 Mpix (5412x7212 pixels)  
22 Mpix (4080x5440 pixels)

**Sensor dimensions:** 36.7x49.0 mm

### H3D-39 file size:

Raw 3FR compressed:  
50 MB average, TIFF 8bit: 117 MB

### H3D-22 file size:

Raw 3FR compressed:  
30 MB average, TIFF 8bit: 66 MB

**Shooting mode:** Single shot

**ISO speed range:** ISO 50-400

**Longest shutter speed:** 32 seconds

**Image storage:** CF card, External Image Bank or tethered to Mac or PC

### Storage capacity:

2 GB CF card making room for (average):  
H3D-39: 40 images; H3D-22: 66 images

**Capture rate:** 2 seconds/image including preview

**Color display:** OLED 2.2"

**Histogram feedback:** Yes

**Acoustic feedback:** Yes

**File format:** Hasselblad 3FR

**Software:** FlexColor (included)

**Platform support:** Mac OSX, NT, 2000, XP

**Host connection type:** FireWire 800 (IEEE1394b)

**Operating temperature:** 0-45°C/32-113°F

### Dimensions with 2,8/80 mm lens:

153x131x213 mm [WxHxD]

**Weight:** 2175 g (with Li-Ion battery and CF card)

**Shutter speed range:** 1/800 s to 32 seconds

### Exposure metering:

Metering options: Spot, Centre weighted and Average. Metering range Spot: EV2 to 21, Centre weighted: EV1 to 21, Average: EV1 to 21

### Power supply:

Rechargeable Li-ion battery (7.2 VDC / 1850 mAh). Optional cassette for 3 CR-123 Lithium batteries available.

**Film compatibility:** Yes

**View Camera compatibility:** Yes

[www.hasselblad.com](http://www.hasselblad.com)