HASSELBLAD

Taking Photography Further



The H4D Family

Model	Pixel count	Sensor size	Sensitivity	Lens range	Exp. time	Multi-shot	DAC	TrueFocus
H4D-40	40Mpix	33.1x44.2mm	ISO 100-1600	HC/HCD	1/800-4 min			
H4D-50	50Mpix	36.8x49.1mm	ISO 50-800	HC/HCD	1/800-32 sec			
H4D-50MS	50Mpix	36.8x49.1mm	ISO 50-800	HC/HCD	1/800-32 sec			
H4D-60	60Mpix	40.2x53.7mm	ISO 50-800	HC/HCD	1/800-32 sec			



Taking Photography Further





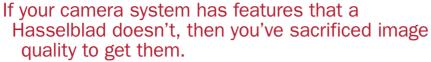


Size Still Matters.

In a world where technology grows smaller and smaller, some things are still better large. Like imaging sensors and lenses, for instance. And while some claim that smaller lenses, smaller sensors, and smaller camera systems can produce the same image quality as larger Medium Format DSLRs, there is a reason why 35mm manufacturers continue to claim that their systems can produce "Medium Format quality".

Simply put, digital photography has made the advantages of Medium Format DSLRs even more obvious. And now with the launch of the H4D-40, Hasselblad is bringing these advantages – larger lenses and sensor size, more advanced optics, increased resolution and clarity, and more – within reach of a whole new generation of photographers.

Providing all the benefits of the renowned Hasselblad system, the H4D-40, with the new True Focus technology, should be an essential part of any serious photographer's arsenal, bringing the world's highest image quality to any application where "good enough" simply doesn't get it.



Let's get one thing straight – the Hasselblad H4D-40 is not a "one size fits all" photographic solution. The H4D-40, like all Hasselblad products for the past half a century or so, has been designed with an uncompromising approach to image quality.

That means that if achieving marginally higher shutter speeds means compromising on image quality - we don't do it. If building our cameras from lighter, cheaper materials means compromising on image quality - we don't do it. If getting a slightly higher ISO means compromising on image quality - well, you get the point.



You are most likely aware of the dramatic developments in the 35mm DSLR world that have taken place in recent years. What you may not be aware of is the fact that Medium Format DSLRs have evolved equally dramatically, maintaining and even in some cases increasing the quality gap that has always existed between small format and larger format systems. Today, more than ever, a Hasselblad DSLR is a crucial component in any serious photographic arsenal, providing the perfect tool for any application where image quality is important and giving you a level of image quality that 35mm systems cannot deliver.

Not Just Bigger, But Better

The natural choice for any application where image quality is important, the H4D-40 provides the platform for the ultimate in creative expression and delivers images that will satisfy even the most demanding customer.

The H4D-40 features a $33.1 \times 44.2 \text{ mm}$ CCD sensor with 40 million pixels, providing almost twice the capture area of the largest 35mm DSLR sensors. These 40 million pixels provide the perfect landing site for the large light path delivered by the high performance HC/HCD lens line, capturing more detail and clarity and delivering perfect color rendering without gradation break-ups in even the finest lit surfaces and cleaner images even at long exposures. This interaction between large scale sensor and lenses forms the foundation for a multitude of image quality enhancements.

What You See is Really What You Get -Hasselblad's Natural Color Solution

Unlike most competeing solutions, Hasselblad's Natural Color Solution (HNCS) gives you outstanding and reliable out-of-the-box colors, with correct natural skin tones, specific product colors and other difficult tones reproduced easily and effectively, with no need for special color profiles or templates.





If there is no difference between 35mm DSLRs and Medium Format DSLRs, then why do so many of the world's leading photographers still choose to invest in a Hasselblad system?

A New Approach to Close-Up Focusing - True Focus and Absolute Position Lock

True Focus helps solve one of the most lingering challenges in the photographic world: achieving true, accurate focusing throughout the image. Without multi-point auto-focus a typical AF camera can only correctly focus on a subject that is in the center of the image. If you want to focus on a subject outside the center, you must first lock focus on the subject and then re-compose the image. At short distances this re-composing causes focus error, as the plane of focus follows the camera's movement, perpendicular to the axis of the lens.

The traditional solution for most DSLR cameras has been to equip the camera with a multi-point AF sensor which allows the photographer to fix an off-center focus point. Such multi-point AF solutions are often tedious and inflexible to work with and due to the physics of SLR cameras, the off-center focus points are all clustered relatively close to the image center. To set focus outside of this center area, you are still forced to focus first, then shift the camera to reframe, with resulting loss of focus as a result.

To overcome this problem, Hasselblad has used modern yaw rate sensor technology to measure angular velocity in an innovative way. The result is the new Absolute Position Lock (APL) processor, which forms the foundation our new True Focus feature. The APL processor accurately logs camera movement during any re-composing, then uses these exact measurements to

calculate the necessary focus adjustment, and issues the proper commands to the lens's focus motor so it can compensate. The APL processor computes the advanced positional algorithms and carries out the required focus corrections at such rapid speed that no shutter lag occurs. The H4D's firmware then further refines the focus using the precise data retrieval system found on all HC/HCD lenses.

Even More Accurate Focusing for Photo Pros

The H4D-40 provides noticeably shallower depth-of-field performance compared to 35mm DSLRs at same aperture. This provides for more accurate composing and focusing, especially when combined with the new True Focus technology. The H4D-40 also provides photographers with two basic tilt and shift options - a classic view camera solution and the simple-to-use, portable HTS tilt/shift adapter.

Intelligent Tilt and Shift

As if the H4D's ability to communicate with all Hasselblad lenses and accessories was not enough, when you add the Hasselblad HTS 1.5 tilt/shift adaptor, your system's IQ goes up another few points. Precise sensors on all the HTS's moving parts continually

communicate with the camera engine, ensuring that all shots are tagged with the information needed by the DAC function to refine your Tilt and Shift images when they are processed, ensuring maximum creative flexibility and uncompromising image quality even at the very edge of the image field when shifted, rotated and tilted to maximum. The HTS 1.5 gives you a portable tilt/shift solution for the HC/HCD lens range from 28mm to 100mm, in effect providing a tilt and shift lens solution at each focal length.

SIZE STILL MATTERS #2: TRUE FOCUS FOR ACCURATE COMPOSING AT CLOSE DISTANCE

The large format of the H System cameras provides considerably shallower depth of field than 35mm DSLR cameras, making it much easier to utilize selective focus to creative effect.

In addition, True Focus further refines close range Auto-Focus for extremely accurate re-composing at close distance. You can now feel safe when working creatively with shallow depth-of-field.

HASSELBLAD DSLR ADVANTAGE: MODULARITY



Modularity = Freedom

The primary reason that photographers choose to invest in and shoot with a Hasselblad system is really quite simple – it's the amazing quality of the images that they get when shooting with our products.

There are a range of other reasons, however, that make a Hasselblad system indispensable to so many photographers around the world. These features, like the legendary Hasselblad craftsmanship and design, the modularity of the system and accessories, or the choice of large, bright viewfinders, provide things in addition to image quality. Things like creative freedom, professional flexibility, or simple peace of mind. Things that help you take your photography further.

Viewing Freedom

With a Hasselblad system you get a modular system that allows you to customize or alter your gear set-up to suit your particular shooting style or needs. You can easily detach your digital capture unit for cleaning, for instance, or attach your H4D-40 to a view camera for advanced studio work. You can also choose between an eye-level or waist-level viewfinder, enabling you to see your subject the way you wish and widening your creative possibilities.

A Bright and Personal View - Choose Your Viewfinders

One of the important traditional advantages of the medium format is the extra-large and bright viewfinder image, enabling extremely precise composition and easy operation in dim lighting. The H4D-4O's HVD 90x

viewfinder provides just that, having been designed to provide full performance over the large sensor area. Or you can choose to shoot with the HVM waist-level viewfinder, which also provides a bright and large viewfinder image, ideal for creative composing. This choice of viewfinders enables you to shoot in the fashion that suits you or the shoot the most; maintaining eye contact with the model, or gaining impact by shooting from a lower perspective, for example.



SIZE STILL MATTERS #3: CHOICE OF BRIGHT VIEWFINDERS

Choose your way of viewing your subject and tailor your shooting style to suit the job at hand with your choice of both eye level and waist level viewfinders, all featuring the market's brightest, clearest viewing screens.

"What few people seem to understand is that technical perfection isn't about being technical - it's about having creative freedom."

MATS BENGTSSON









Easy to Use - Difficult to Beat

One of the most common myths regarding Medium Format systems is that they are difficult to learn and hard to use. In fact, Hasselblad DSLRs are no more difficult to use than highend 35 systems.

Both our software and hardware are surprisingly easy to use; many photographers even claim that Hasselblad gear is simpler and easier to use than 35mm set-ups.

Customized Profiles and Easy Interface

The H4D-40 provides quick and easy setup for specific shooting styles using default or personal profiles. A single button press lets you load your preferred profile and the H4D-40 will be setup for action, with AF-mode, aperture/exposure time, user button configuration, etc predefined according to your preferences. The entire user interface can be easily controlled from both camera wheels or menus, according to preference.

IAA for Quick and Easy Classification

Our IAA feature provides an enhanced set of feedback tools that help you focus on the shoot rather than the selection process. Classification stats are 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 back at the studio

If you can't find it – build it: Hasselblad 3FR

Several of our unique image improvement features would not be possible at all without our proprietary raw file format, the Hasselblad 3F RAW (3FR). This file format includes lossless image compression, which reduces the storage space required by 33%. 3FR files are processed by Hasselblad's Phocus software to deliver the ultimate Hasselblad image quality.

The 3FR files are also open for direct entry into an Apple or Adobe imaging environment.

"With a Hasselblad, you know that you're holding the best tool you can have in your camera bag."

STEVE MCCURRY

SIZE STILL MATTERS #4: EXTENDED EXPOSURE TIMES

Having one of the world's largest sensors doesn't have to mean short exposure times. The H4D-40 allows extended exposures of up to 4 minutes in length, giving even more creative control.



noto: Steve McCur

Download from Www.Somanuals.com



The greatest of images starts as light.

When we first designed our HC/HCD lens line we set specifications and performance standards high – extremely high, in fact. Our aim was not just to deliver a unique line of fast, motor driven, central lens AF-lenses with manual focus override, but to create the finest lens line in the world.

Now, four generations of H Cameras later, the HC/HCD line is just that – the finest lens line in the world, outperforming even the best of our legendary Carl Zeiss icons and setting a new standard for professional lens performance. The Hasselblad HC/HCD lens line includes 11 AF lenses, ranging from 28mm to 300mm, all with central lens shutters, all with manual focus override.



Stability and Creativity – Hasselblad Central Lens Shutters

The integral central lens shutters in every Hasselblad lens reduce camera vibration, resulting in a more stabile platform and improved digital image quality, and allow flash sync at all shutter speeds up to 1/800s, opening the door to many creative shooting solutions that are otherwise impossible.

Buy the Future – Get the Past for Free: the CF adapter

The Hasselblad HC/HCD lens line outperforms even our legendary V System Carl Zeiss lenses, but why choose? With the CF adapter you can use any CF-lens on your H System camera, with full use of the central shutters, allowing flash to be employed at shutter speeds up to 1/500s. Watch out for imitators claiming to offer CF-lens support based upon a mere mechanical mount – such products do not support central lens shutters.

DAC - There's No Such Thing as Perfect - But That Doesn't Stop Us from Trying

Physical optical design and engineering can only go so far to correct the small imperfections that all optics – even the most advanced ones - contain. In our pursuit of the ultimate image quality, however, Hasselblad has developed a special application that corrects even the smallest of imperfections. This special lens correction system (DAC) uses data from our advanced intra-system communication to ultra-fine-tune each image, ensuring that color aberration, distortion, and vignetting are removed automatically and seamlessly with all HC/HCD lenses. DAC even refines images shot with the Carl Zeiss CF-lens line, based upon manual input of the necessary parameters.

Ultra-Focus

The H4D-40 camera also allows information from the lens and exact capture conditions to be fed to the camera processor for ultra-fine-tuning of the AF mechanism, taking into account the lens design and the sensor specifications and resulting in an entirely new level of sharpness and resolution



H Lenses



HCD 4/28

This retro focus lens has a 95' diagonal angle of view making it the most extreme wide-angle lens presently available in the medium-format. Outstanding results are achieved throughout the focusing range exhibiting excellent corner-to-corner sharpnes

HC 3,5/35

A retro focus lens with 89° diagonal angle of view. This lens offers outstanding corner-to-corner sharpness, low dispersion glass, even illumination, and features an advanced optical design with rear focus mechanism to ensure high performance even at the close focusing range.

HC 3,5/50

An all-round, wide-angle lens. A versatile all-purpose lens, incorporating a moderate wide-angle effect, and featuring advanced optical design with rear focus mechanism. Corner-to-corner illumination is very even at all aperture settings, and distortion

and stray light are extremely well

HC 2,8/80

The 2.8/80 is the standard lens for the H system. The high-performance design ensures great color correction, a flat image plane, and low distortion.

The large aperture facilitates photography in poor light and provides a bright viewfinder image. A lens suited for almost any task in general photography.

HC 2,2/100

The 100 mm is a fast lens particularly suited to low-light situations or for action shots where higher shutter speeds are required.

The slightly longer than standard length coupled with its shorter depth-of-field makes it an interesting choice for portraits too in many instances.

HC Macro 4/120 The Macro 120 mm has exceptionally high performance making

it a very versatile lens not only for close-up work but general applications too where a slightly long

lens is required.

HC 3,2/150

An ideal portrait lens, providing the ideal perspective for head and shoulder portraits. Also very suitable for landscape photography.

HC 4/210

A useful length lens that meets the demands of landscape work, for example, while also providing a longer portrait lens.

HC 4,5/300

The 300mm lens is the longest lens in the present HC lens range. It has a fast autofocus reaction making it suitable for certain sports and wildlife applications.

HC 3,5-4,5/50-110

The HC 50-110 mm zoom lens has a range from wide-angle to short telephoto. This lens

boasts exceptionally high image quality at all focal length settings, whether shooting film or digital, and is comparable with corresponding fixed focal length

HCD 4-5,6/35-90

The result of our constant striving for ultimate performance, the new HCD 4.0-5.6/35-90 zoom lens combines our advanced optical design models and the H-system's unique digital lens correction with a new aspheric lens element design to create what we think is the highest performing zoom lens on the market today.

Converter H1,7x

The Converter 1.7 attaches between the lens and body to increase the focal length by a factor of 1.7. This provides a convenient way to expand your range of lenses.

Lens	35 mm equivalent	Lens	35 mm equivalent
HCD 4/28	22 mm	HC 3.2/150	117 mm
HC 3.5/35	27 mm	HC 4/210	165 mm
HC 3.5/50	39 mm	HC 4.5/300	235 mm
HC 2.8/80	63 mm	HCD 4-5.6/35-90	27-70 mm
HC 2.2/100	78 mm	HC 3.5-4.5/50-110	39–86 mm
HC 4/120	94 mm		

V Lenses All C-type lenses from the V system with optional CF lens adapter





CF Adapter The CF lens adapter allows all C-type (lens shutter) lenses from the V system to be used on any H system camera. See under 'Lenses' for further details.



HTS 1.5 tilt and shift adapter The HTS 1.5 tilt/shift adapter provides a powerful new focusing and creative tool that can help you take your photographic expression to entirely new levels. The tilt/shift adapter works with the following range of lenses and extension tubes: HCD28mm, HC35mm, HC50mm, HC80mm, HC100mm and H13, H26, H52, All movements are digitally recorded and saved as metadata for use with Hasselblad's DAC lens corrections

Lens shades A series of professional quality lens shades made specifically for the HC7HCD lenses. (For the full range of lens shades, go to www.hasselblad.com)



GPS Recording Flexibility Hasselblad's Global Image Locator (GIL) can be used with any Hasselblad H-System DSLR. The GIL device tags all images captured outdoors with GPS coordinates, time, and altitude.

This data then serves as the basis for a number of subsequent applications involving image archiving and retrieval, the direct mapping of images in Phocus software to the Google Earth application for example.



Extension tubes H13. H26. H52 Extension tubes for close-up photography (13, 26, and 52mm respectively

HVD 90x viewfinder 90° reflex viewfinder. 100% field of view even when wearing eyeglasses. Includes built-in fill flash and multi-mode light metering system. Exclusively designed for H4D.

Flash adapter SCA 3902 For connecting flashes compatible with the SCA 3002 system to Hasselblad H cameras.



HVM viewfinder The HVM waist level viewfinder allows for a comfortable working position at low camera positions and good eye contact with many types of portrait work.

HVM correction lens holder Lens holder for custom made eyesight correction (lenses available from opticians). To be used for optimal viewing comfort and accuracy.

Angle finder H Angle finder for the HV 90x and the HVD 90x viewfinders. Enables vertical viewing angle regardless of camera position. Requires a minor modification to the viewfinder eyepiece.

DC power grip Removable H-camera grip with AC power adapter for supplying camera power from mains.

Focusing screen H3D-31 Spherical Acute-Matte D type focusing screen. Central markings for spot (Ø7.5 mm) and AF metering area. Masked for the format used in 22/39/50 and 31 megapixel cameras. Delivered as standard with H4D-40.

Focusing screen H3D-31

Spherical Acute-Matte D type focusing screen. Central markings for spot (Ø7.5 mm) and AF metering area. With grid markings and masked for the format used in 22/39/50 and 31

Proshade adapters 67mm, 77mm, 95mm Adapters with bayonet mount for lens front. Features lock to provide positive and secure attachment

Proshade 6095 V/H The Proshade 6095 V/H is an adjustable bellows lens shade that provides highly efficient protection against stray light. Its compact, flat folding design saves space in the equipment case. By using the Proshade adapters, this shade can be fitted to all Hasselblad H-system lenses as well as to all V-system lenses except the Distagon CFi 30 mm and Tele-Superachromat FE 300 mm. The shade features a filter holder for glass, gelatin, or plastic filters. The bellows folds down for easy access to the filter holder or for viewing without filter. The Hasselblad Proshade 6095 V/H is supplied with one Proshade mask for V-cameras and one Proshade mask for



SIZE STILL MATTERS #7: ADVANCED SOFTWARE, SIMPLE INTERFACE

Hasselblad's Phocus software enables you to get the most from the world's most advanced image files without having to go back to school to do it. The average photographer is up and running with Phocus in less than 20 minutes.

Why Phocus?

Using Phocus allows you to get the most from the world's most detailed image files and to achieve groundbreaking new levels of image quality and technical precision. Phocus is available for both Mac and Windows. Phocus is both powerful and easy to use and provides a range of professional features:

Benefits from Hasselblad's Proprietary Image Enhancement Technology

Phocus combines with Hasselblad Natural Color Solution and Digital Auto Correction (DAC) to provide ultimate image quality in every file. Phocus with DAC increases image resolution and delivers perfect pixels, providing the perfect base for optimal image rendering and further processing.

Leading Edge Moiré Removal

With Phocus, the moiré that can occur on even extremely high resolution images is effectively removed automatically and directly on the raw data, leaving image quality intact and saving hours of tedious post-production work.

Advanced Camera Control and Perfect Viewing Quality

Tethered shooting is smooth with Phocus Remote camera controls, providing a number of remote functions, such as remote focusing, live view, aperture and exposure time controls, etc.

Phocus delivers a variety of advanced image quality enhancements, including:

- Extended Metadata
- Amazingly easy-to-use interface
- Highlight recovery and shadow fill
- Loupe function via Navigator
- End point control in Histogram
- F-stop marks on histogram
- Scene calibration
- Layout triggers
- And much, much more.

Check it out for yourself at www.hasselblad.com



Browsing and selection of images



Image adjustments of your choice



Inspection options for control of every detail



HC 100mm

Choice of combining point-and-shoot and tilt/shift to solve creative commercial challenges.

Fast and accurate in-lens Auto Focus with manual focus override.

Highest image resolution from 40Mpixel sensor.

Option of processing raw images in Hasselblad's Phocus imaging toolbox, or directly in Apple or Adobe imaging environments.

H4D

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Up to 80 MB/sec read-write performance supporting fastest CF cards in the market.

Annual and Administration

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Camera type: Large sensor medium format DSLR

Sensor size: Kodak 40.0 Mpixels (7304 x 5478 pixels)

Sensor dimensions: 33.1×44.2 mm

Image size: RAW 3FR capture 50 MB on average. TIFF 8 bit: 120 MB

File format: Lossless compressed Hasselblad RAW 3FR

Lenses:

Hasselblad HC/HCD lens line with integral central lens shutter.

Shutter speed range: 256 seconds to 1/800 second

ISO speed range: ISO 100. 200, 400, 800 and 1600

Color definition: 16 bit

Color management: Hasselblad Natural Color Solution

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.

True Focus: Automatic focus adjustment to compensate for camera movement when re-composing. Based upon Absolute Position Lock (APL) processor technology.

Viewfinder options: HVD 90x: 90° eye-level viewfinder w. diopter adjustment (-5 to +3.5D). Image magnification 3.1 times. HV 90x: 90° eve-level viewfinder w. diopter adjustment (-4 to +2.5D). Image magnification 2.7 times.

HVM: Waist-level viewfinder. Image magnification 3.2 times.

Mounted on CCD sensor

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).

Storage options: CF card type U-DMA (e.g. SanDisk extreme IV) or tethered to Mac or PC

Storage capacity: 4 GB CF card holds 75 images on average

Capture rate: 1.1 seconds per capture. 50 captures per minute

Color display: Yes, 3 inch TFT type, 24 bit color, 230 400 pixels

Histogram feedback: Yes

Phocus software: For Mac and Windows

Platform support: Macintosh: OSX. Windows: XP (32 and 64 bit), Vista (32 and 64 bit), Windows 7 (32 and 64 bit).

Host connection type: FireWire 800 (IEEE 1394b)

View camera compatibility: Yes. Mechanical shutters controlled via flash sync. Electronic shutters can be controlled from Phocus.

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

Dimensions complete camera with HC80 mm lens: 153 x 131 x 213 mm (WxHxD)

Weight: 2290 g (Complete camera w. HC80 mm lens, Li-Ion battery and CF card)

Our H4D-40 Photographers

To read more about the images in this catalogue and the talented photographers who provided them, check out the individual shooters' links on the Hasselblad Showcase:

http://www.hasselblad.com/user-showcase.aspx



Marvel Pabst's images: Make Up & Styling: Sabina Sung Models: Mathilda Jansson/Aveny Modeller - Pontus Arvåsen 3D : Anders Eriksson/Digi Pun

Page 8: Page 10: Peder Dalmo **Thomas Morel** Norway Denmark



Michael Grecco www.michaelgrecco.com www.marcelpabst.se



Marcel Pahst Sweden



Kevin Then Malavsia www.kevinthen.com



Mats Bengtsson Sweden www.matsbengtsson.se www.stevemccurry.com



Steve McCurry

A World of Hasselblad

The Hasselblad website is more than just a place to present our products and philosophy. We are busy turning www.hasselblad.com into a place for photographers to gather to share tips and tricks, to show off their work, view the work of others, and to learn more about high-end photography. We have a wide range of content, from videos and video tutorials, virtual demos, brochures and user guide

Ann on other

downloads to - naturally - all the info you could desire about our products and company. On our website you will also find a presentation of this year's Masters winners, portals where you can vote for the upcoming Masters competition or enter to compete yourself, access to our award winning Victor by Hasselbald magazine, and much, much more.

And, as of February 10, 2010, there is a special area of the website devoted just to Hasselblad owners. The new Hasselbald Owners Area will provide a place for Hasselblad photographers to present their images and businesses to the over 1.4 million visitors that come to the site every year, and a place for the public to come and check out some of the most advanced phtoographers in the industry today.

www.hasselblad.com

Hasselblad Owners' Club



www.hasselblad.com







Victor by Hasselblad

V Planet

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