

COBALT

Computer to Plate Systems

- Revolutionary product at a revolutionary price
- Increase quality, reduce operating costs
- Simple to install, simple to use
- Superior imaging speed and reliability
- Fast payback, less than one year
- Double the speed at half the price





Cobalt delivers quality, reliability and speed without compromise

- Cobalt's advanced technology delivers reliability while imaging at the highest quality and speed
 - *"For us, quality is the cornerstone of our business and has never been compromised in over 40 years. We chose a Cobalt-8 to replace our existing CTP because it is absolutely the best quality we've seen... in addition, its productivity is so high it is competitive with automated CTP systems", Orfre Tolusso, New Sele Printing, Milan, Italy.*
- Cobalt delivers perfectly registered plates, plate after plate after plate
 - *With a single shift per day, Windsor Marketing images more than 6,000 sq. ft. of plate producing 750 8-page plates each week*



Cobalt is simply the most advanced platesetter

- Cobalt's advanced violet laser-diode replaces complex optics with a single fiber, delivering more power to the plate at less cost
- Cobalt's internal drum, cast from the most advanced composite of granite and quartz, eliminates the effect of temperature variations and vibrations
- Cobalt's control system, based on the latest PC technology, provides the most advanced web-based user interface and remote diagnostics
- Cobalt's advanced imaging engine design, based on only two moving parts, delivers the ultimate in accuracy and reliability



Everyone is a Cobalt CTP customer

Qualify a customer with these simple criteria:

- Are they an offset printer with sheet-fed or web press?
- Are their presses 8-up or smaller?
- Are their sales revenues over \$1M?
- If they already own a CTP system, is it more than 3 years old or do they need to increase plate capacity?

If the response to these questions is YES, they are ready for a Cobalt.



Cobalt CTP: The obvious win-win investment

Faster make-ready times

Consistently high quality plates = shorter make-readies = more billable hours on press = **increased profits**

Lower paper wastage

Faster press make-readies = lower paper wastage = **reduced costs**

Fastest time from digital file to plate

No film processing, film chemistry, exposure frames or film handling = more plates per hour from the prepress department = **increased productivity**

Highest quality

First generation dot = higher lines screens, (including stochastic), and less dot gain on press = higher quality printing = **increased revenues**



The image shows a close-up of a sign for the Cobalt 4 Computer to Plate System. The text 'COBALT4' is in a large, blue, serif font. Below it, 'Computer to Plate System' is written in a smaller, blue, sans-serif font. To the right, a large blue '8' is visible, with a small 'm' underneath it. The background is a light-colored wall with some horizontal lines.

COBALT4

Computer to Plate System

8
m

Not all CTP systems are created equal...

- Cobalt is unmatched in price and performance – with no compromises!
- Cobalt's reliability is unparalleled and backed by ComfortZone3, the industry's only, global, no charge, 3-year parts warranty
- Cobalt works seamlessly with ANY front-end workflow system, ensuring investment in technology and manpower training is secure
- Cobalt is the only platesetter that can image both silver-halide and photopolymer plate technologies
- Cobalt's simple one-button operation requires no special training
- Cobalt's unique, security protected web-based interface allows remote operation from any web-enabled PC
- Cobalt has the smallest footprint – half that of equivalent engines



Cobalt has the lowest cost of acquisition

The cost of a Cobalt CTP system is one-half to one-third that of equivalent violet or thermal systems.

Why?

- Cobalt's advanced technology images at the highest quality and speed with only two moving parts working together to deliver a single perfect beam to the plate surface: a spinning air-bearing mirror and a linear motor to drive it across the stationary internal drum
- On the other hand, thermal systems require complex plate mounting systems, massive rotating drums, cooling systems and ultra-complex electronics and optics to deliver multiple laser beams to the plate surface
- Cobalt's simplicity not only ensures reliability, it secures lower costs





Cobalt has the lowest cost of operation

With a Cobalt CTP system, the savings in power consumption alone over a 5-year period will amount to more than its purchase price.

Why?

- A Cobalt system uses the same amount of electrical power as an office laser printer and runs from a standard office power outlet
- Other violet and especially thermal systems require up to 10 times more power, not including the power-hungry pre- and post-bake plate ovens



Cobalt has the lowest cost of maintenance

With Cobalt CTP systems, reliability is built-in by design and backed-up by the industry's first and only 3-year warranty.

Why?

- First and foremost, we stand behind our claim with the revolutionary 3-year ComfortZone3 warranty, standard with every unit
- Cobalt's imaging system consists of an air-bearing scanner that does not wear and an internal drum that does not move
- Every violet laser-diode installed in a Cobalt is good for over 10,000 hours of plate exposure
- Unlike thermal systems, the Cobalt laser is switched off between plates, ensuring a reliable and longer lifespan
- The cost of replacing Cobalt's violet laser-diode is easily one-tenth the cost of the cheapest thermal laser and can be done in just a few minutes





Cobalt delivers quality

MYTH:

Thermal CTP delivers higher quality than violet CTP

REALITY:

Violet CTP plates produce equal, and in some cases higher quality than thermal

- For over 17 years, Escher-Grad has built systems that image at 8,000 to 12,000 dpi – That's the quality legacy built into every Cobalt!
- From one to ninety-nine percent tints at 250+ line-screens, Cobalt CTP plates match or exceed thermal or other visible light platesetters in speed, quality and consistency, proven daily at the world's largest printing company

Violet CTP is here to stay

MYTH:

Violet CTP is just a temporary trend but thermal is here to stay

REALITY:

Every manufacturer of CTP equipment builds violet CTP systems, except ONE

- All four leading plate manufacturers have spent millions in R&D producing violet CTP plates
- It is impossible to deliver high-quality, price-leading CTP systems using thermal technology
- The new generation of violet photopolymer plates destroys the argument that thermal plates are unique in delivering long run lengths in harsh pressroom environments
- Violet photopolymer plates can be cured to run for more than one million impressions and work in UV ink/drying environments and with very low quality paper stocks



Cobalt quality surpasses conventional plates

MYTH:

Computer-to-Conventional-Plate (CtCP) makes most sense

REALITY:

The price of CtCP is virtually unaffordable while its quality has been well exceeded by digital CTP

- The analog technology of conventional plates simply cannot deliver the high level of quality obtainable from the new generation of digital CTP plates
- Escher-Grad has successfully built and installed Computer-to-Conventional-Plate systems but very few printers can even begin to justify this type of technology
- With the energy required to image a conventional plate (minimum 5,000 watt), the only lasers available are extremely expensive to buy and support
- Other technologies that image a limited range of very high-speed conventional plates compromise speed and quality while still having very high costs of purchase, support and energy consumption

Cobalt images 1500+ Plates per week

MYTH:

Manual operations will increase costs and slow production

REALITY:

Automation adds both procurement and support costs with a negative impact on throughput

- With a simple, 15 second, load/unload cycle Cobalt will easily outperform the far costlier semi and fully automatic competitors
- There is no such thing as completely unattended plate manufacturing – someone is required to reload, monitor and reset automated plate loading systems
- Cobalt plate loading can be accomplished after 20 minutes of training
- With Cobalt, perfect plate manufacturing no longer requires highly skilled operators

The Productivity Calculator

Cobalts have a tremendous speed advantage over other CTP systems. This calculation will work for any size plate at any resolution.

	Example	Work Table
Smallest side of plate (in inches)	30	
Resolution (dpi)	x 1000	x
	= 30000	=
Scan lines per second	÷ 400	÷ 400
Seconds to image plate	= 75	=
	÷ 60	÷ 60
Minutes to image plate	= 1.25	=
Load/unload time per plate	+ .25	+ .25
Total time per plate	= 1.50	=
60 minutes	60	60
Total time per plate	÷ 1.50	÷
Plates per hour	= 40	=
Hours per shift	x 8	x
Plates per shift	= 320	=
Shifts per day	x 3	x
Plates per day	= 960	=

Sample R.O. I.

All Cobalt CTP customers report a dramatic and measurable increase in throughput, especially in their prepress area. With no more film stripping and handling, they are operating with less staff and producing more plates at a much higher quality. Still, each ROI calculation is as unique as each customer.

The following is just one example of a printer who is producing four 48-page, 4-color magazines on an 8-page press, per month. This example does not include the savings realized with Escher-Grad's 3-year ComfortZone3 warranty – standard with all Cobalt CTP systems.

	Conventional	Cobalt CTP
Consumables cost per page (film, plates & chemistry)	\$16.00	\$17.00
Overhead cost per page (see Hourly Rates below)	\$10.00	\$4.50
Stripping charges per page	\$4.63	\$0.00
Imposition proofs per page	\$4.20	\$2.50
Press make-ready cost per page	\$39.41	\$10.00
Total cost per page	\$74.24	\$44.00
48-page per magazine	x 48	x 48
Total cost per magazine	\$3,563.52	\$1,632.00
4 magazines per month	x 4	x 4
Total cost per month	\$14,254.08	\$6,528.00
12 months per year	x 12	x 12
Yearly cost:	\$171,048.96	\$78,336.00

Savings with Cobalt CTP:

\$92,712.96

Conventional Hourly Rate:

Overall internal cost per page, based on an hourly rate that includes:

- (1) The physical equipment (film imagesetter, film processor, exposure unit, plate processor)
- (2) Overhead (Maintenance contracts, labor, energy costs and space occupied)

CTP Hourly Rate:

Overall internal cost per page, based on an hourly rate that includes:

- (1) The physical equipment (Cobalt-8 and plate processor)
- (2) Overhead (Maintenance, labor, energy costs and space occupied)



Cobalt isn't tied to any workflow...

- All Cobalt CTP systems include ImageSpool, our key productivity software that lets users decide which digital front-end best suits their business
- With ImageSpool, Cobalt can accept 1-bit Tiff files from all the major front-end workflow systems
 - Adobe
 - Agfa
 - ArtQuest
 - Barco
 - Compose
 - Creo
 - DaiNippon Screen
 - ECRM MaxFlow
 - Fuji
 - Harlequin
 - Heidelberg
 - PCC/Artworks
 - Polka Dots
 - Rampage

And more... Visit our web site for the latest listing. If a software package isn't listed, please contact us.

Freedom to choose the plate technology

Cobalt is the only platesetter that offers a choice of plate technologies from a choice of plate vendors

Cobalt will image silver-halide plates:

- Agfa Lithostar Plus Lap-V
- Agfa Lithostar Ultra Lap-V
- Mitsubishi SDP-alpha Silver Digiplate Alpha Violet

And photopolymer plates:

- Fuji Brillia LP-NV
- Lastra DiamondPlate LV-1

The violet consumable market is changing in leaps and bounds. Visit our web site for the latest list of available plates.



This is all it takes

To complete a Cobalt CTP system

A plate processor

A workstation

A CTP plate reader

That's all...

- No ovens
- No expensive industrial air-conditioning systems

And there is no need to change....

- Existing front-end workflow systems
- Conventional bright yellow safe light environment

Cobalt brings CTP into the

Comfort ZONE 3

- At Escher-Grad we stand behind our reliability claims and ensure the lowest cost of maintenance with our revolutionary 3-year ComfortZone3 limited warranty, the first and only warranty of its kind in the industry
- Return-to-factory parts warranty guarantees three years of worry-free operation
- With ComfortZone3 acquisition, maintenance and operating costs are secure – with no hidden surprises



Preparing for a Cobalt

Select the plate brand and ensure a preliminary supply is on-site

Choose the location

Determine the appropriate lighting for the plate selected

Ensure temperature and humidity are within “Office Environment” levels

Install the plate processor

Service: We've got it covered

Cobalt has the widest range of service options that can be individually tuned to meet any requirement.

- Revolutionary 3-year ComfortZone3 limited warranty is standard with every Cobalt unit
- Remote Diagnostics standard with every unit
- 24/7 technical phone support to the channel
- Merlin, the industry's leading on-line trouble-shooting guide
- Field-upgradeable components for quick replacement
- Factory training and on-site spare parts kit
- On-site field service with guaranteed response time





Cobalt-4 Specifications

Media Type	Violet-sensitive metal plates 6 to 20 mil thickness Silver-halide and photopolymer plates
Media Size	Min. 8.5 x 11 inches (216 x 279 mm) Max. 24.21 x 29.33 inches (615 x 745 mm)
Image Size	Same as Media Size
Laser	Violet laser-diode, 410 nm 5mW standard, 30mW optional
Imaging Speed	400 scan lines per second 1.2 min @ 1200 dpi at maximum image size 2.4 min @ 2400 dpi at maximum image size
Addressability	Variable
Spot Size	10 to 20 microns
Repeatability	± 0.0002 inch (± 5 microns)
Interface	SCSI Optionally, any PCI-based network interfaces
Power	110/220 Volts, 15/8 Amps, 50/60 Hz
Environment	Yellow safelight
Temperature	60-80° F (15-25° C)
Humidity	40% - 60%
Size	52.5 x 35 x 55 inches (1335 x 890 x 1400 mm)
Weight	1200 lbs. (545 Kgs)

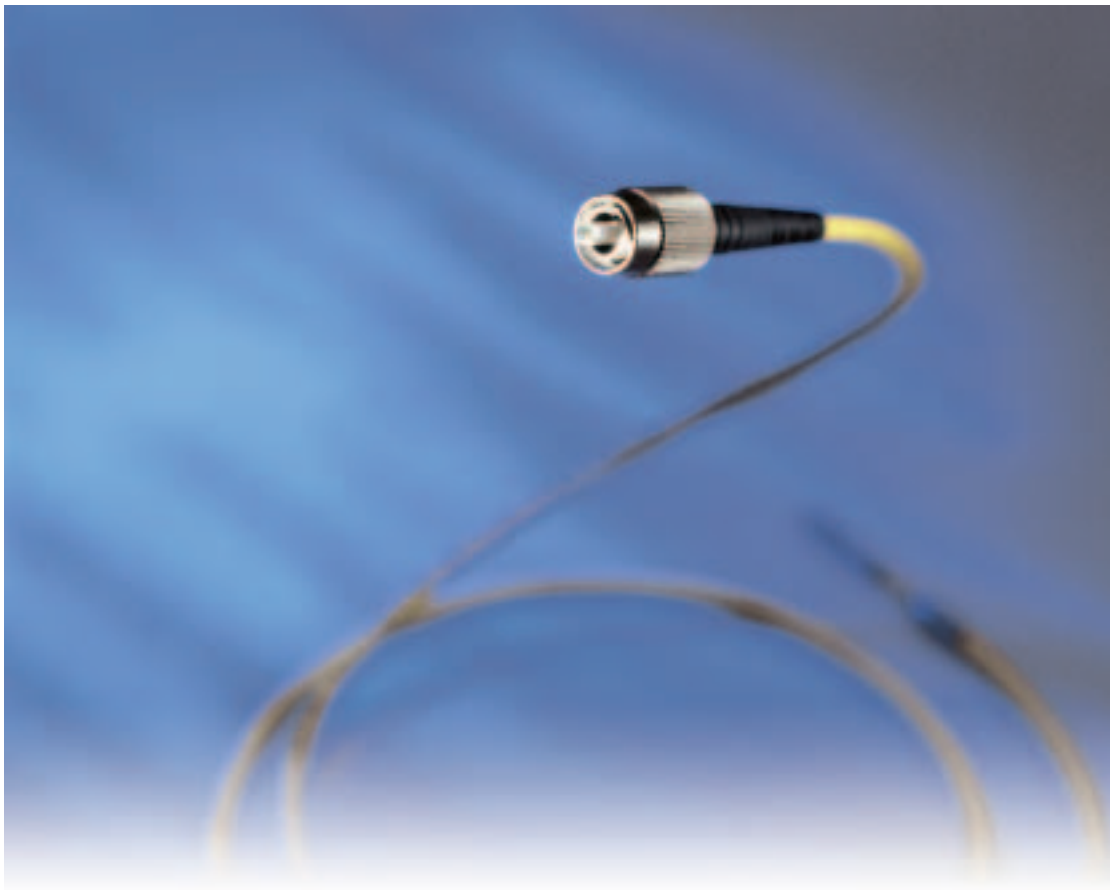
Specifications are subject to change without notice.



Cobalt-8 Specifications

Media Type	Violet-sensitive metal plates 6 to 12 mil thickness Silver-halide and photopolymer plates
Media Size	Min. 16.14 x 19.68 inches (410 x 500 mm) Max. 31.9 x 42.12 inches (810 x 1070 mm)
Image Size	Same as Media Size
Laser	Violet laser-diode, 410 nm 5mW standard, 30mW optional
Imaging Speed	400 scan lines per second 1.5 min @ 1200 dpi at maximum image size 3 min @ 2400 dpi at maximum image size
Addressability	Variable
Spot Size	10 to 20 microns
Repeatability	± 0.0002 inch (± 5 microns)
Interface	SCSI Optionally, any PCI-based network interfaces
Power	110/220 Volts, 15/8 Amps, 50/60 Hz
Environment	Yellow safelight
Temperature	60-80° F (15-25° C)
Humidity	40% - 60%
Size	64.5 x 43.5 x 37.5 inches (1640 x 1105 x 955 mm)
Weight	1300 lbs. (590 Kgs)

Specifications are subject to change without notice.



Frequently Asked Questions

Q1: Will CTP plate pricing alone justify my investment?

A1: CTP will increase quality and productivity throughout a company, not just in prepress. The real savings are not in the price of plates, but in the greatly increased throughput, quality and consistency!

Q2: How does ImageSpool work with my existing workflow?

A2: ImageSpool is Escher-Grad's software utility for accepting the most common file format in the industry (1-bit Tiff). Installed on a separate workstation, ImageSpool will provide an unattended pipeline from a printer's existing RIP/workflow to any Cobalt. Simply set up the required plate sizes and resolutions and it will run in the background with zero operator intervention.

Frequently Asked Questions

Q3: If I buy a Cobalt, will I need to change the way I make proofs?

A3: Yes. Most printers are adopting lower cost inkjet proofing systems when they move to CTP. The proofer and the Cobalt will need to be adjusted to match color.

Q4: Which type of plates can Cobalt image?

A4: Unlike other CTP systems, Cobalts can image all violet sensitive metal plates, whether they are silver or photopolymer based. Check Escher-Grad's web site for the latest list, (it's growing quickly).

Q5: Can one Cobalt handle multiple press sizes and punch layouts?

A5: Yes. Cobalts can image any size plates within their minimum to maximum size range while ensuring perfect registration and repeatability. A single unit can easily serve multiple presses and, unlike automated systems, the manual load does not limit the number of plate sizes a single unit can accept. There is no need to change punch/notch layouts to accommodate different press sizes.

Q6: How do I check plates and how often should I be checking?

A6: There are many manufacturers providing plate readers for CTP plates. Placing a simple step-wedge of halftones in the color control bar or outside of the job's margins will give a prepress department the opportunity to check each and every plate or, more realistically, to check plate output once daily, weekly or monthly. Plate readers can provide a level of assurance without the costs associated with discovering the problem on press.

Frequently Asked Questions

Q7: Do Cobalt CTP plates need different handling and storage?

A7: Yes. Given Cobalt's superior registration accuracy, it is advised that plates are handled with a little extra care when being punched and bent. Storage and gumming solution specifications are particular to the brand of plate and should be verified with the plate manufacturer.

Q8: Will I need to change my pressroom chemistry?

A8: No. Cobalt CTP plates will tolerate the widest range of press chemistries. Plate cleaning, fix, deletion and addition pen solutions are particular to the brand of plate and should be verified with the plate manufacturer.

Q9: Will Cobalt plates work with UV ink/dryer based presses?

A9: Yes. The latest generation of photopolymer violet plates work in UV environments. Violet silver-halide plates will also function with a reduced number of maximum impressions.

Q10: Will Cobalt CTP plates change the way I print?

A10: Yes. Cobalt CTP plates offer perfect register and reduced make-ready times. They also allow for less water than conventional plates and come to color faster. If a printer already runs to a set of Standard Ink Densities, nothing needs to change. Cobalt CTP plates allow for far higher ink densities to be employed and because dot gain is dramatically reduced, so is ink consumption.

Q11: What if I need more than 1,500 plates per week?

A11: Our advice would be to purchase additional Cobalts. At this volume of plate production, a positive ROI is achieved in weeks!

Frequently Asked Questions

Q12: What happens to the laser diode after 10,000 hours?

A12: A Cobalt's laser is only on during plate exposure. Ten thousand hours roughly equates to five years of single shift operations. Because of the laser's modular design, it can be replaced and back in operation in less than one hour. Escher-Grad is unique in offering the widest range of support options in the industry.

Q13: What if my presses are larger than a Cobalt-8?

A13: There is a Cobalt-32! A semi-automatic violet CTP system capable of imaging plates up to 60 x 80 inches (1524 x 2032mm). Contact Escher-Grad for further information.



Notes



Notes



