

Requirements

The goal is to have a printer that can copy, scan, and print reliably, output full bleed on all paper edges and have perfect binding and saddle-stitching capabilities.

- It should cost less than what we're paying for printers now (\$8,826.90 per month for two C6500 printers).
- Current printing from the C6500s averages 63,453 B/W and 48,128 color copies per month. The new printer must handle at least that volume.
- The new system must meet our current requirements for printing and saddle-stitching user manuals and MarCom publications.
- The new system must be capable of printing, binding, and trimming the Patton Product Line catalog.

Printer recommendation

Features

The **Konica Minolta PRESS C8000** has the edge in the following capabilities/features

- Throughput (80 pages per minute vs 60 on the Canon unit)
- Higher paper capacity on the main unit (1,500 sheets vs 1,000 on the Canon unit)
- Higher paper capacity on the additional paper feed unit (4,630 sheets vs 4,000 on the Canon unit)
- Two fusers (helps maintain printing speed when using heavy or light paper stocks) vs one on the Canon unit
- Multi-folding unit vs no multi-fold capabilities on the Canon unit
- Perfect binder produces 600 page books vs 400 page books on the Canon unit.

But those full-bleed books from the Canon unit can be trimmed on 3-edges because it includes trimming knives. To get the same from the KM solution, we'd have to trim the books using the external Rosback trimmer.

If we go with KM, we'd own the external trimmer at the end of the lease. Having watched a Rosback trimmer in use at Ridge Printing, I don't think it would be a problem for our workflow, but it does add an additional step to the process.

- Saddle-stitch finisher produces booklets up to 200 pages each vs 100 pages on the Canon unit.

Again, the Canon unit can bind and trim the full-bleed booklets internally whereas the KM output will need to be trimmed on the Rosback.

The second fuser enables the KM unit to print a wider variety of paper weights and stocks (vinyl and linen for example). The multi-fold capability will make any folds we'd be likely to need (including half fold, letter fold-in, letter fold-out, z-fold, double parallel fold and gate fold).

The **Canon imagePRESS C6010** has the edge in the following capabilities/features;

- Higher monthly duty cycle (700,000 pages vs 500,000 on the Konica Minolta (KM) unit)

- 3-edge trimming capability vs none on the KM machine.

The KM solution was to add an external Rosback trimmer

The Canon solution has the advantage of doing everything in a single process, so it's more convenient.

When we were going to keep one of the C6500s, the external Rosback trimmer was an advantage because it could trim output from the KM C8000 and C6500 printers. Now that we're returning both 6500s that advantage is gone. As such, the Canon all-in-one approach is more convenient for us.

The KM unit can print a wider variety of paper weights and stocks, but we don't currently have a requirement for printing on unusual materials. Same with the multi-folding unit: we don't produce brochures and the like that would require the capability.

Recommendation: Canon based on current requirements.

Print quality

Canon and KM were given Patton publications to print. Both produced samples of very high quality with excellent color rendering.

Recommendation: Both printers are equally good for our requirements.

Best customer service

After checking with two references each from KM and Canon, I think both companies would be reliable and give us good service. But KM already has a good track record with Patton so, as the manager I interviewed at Medimmune said about keeping Canon as their printing company: "If it ain't broke, don't fix it".

Recommendation: Konica Minolta.

Costs

Konica Minolta: The monthly cost (lease plus service plan) of **\$6,459.93** is **\$2,367.37** less than we're currently paying for the C6500s (**\$8,826.90**).

Over the 60-month lease, the total cost will be **\$387,595.80**

Minus a \$10,000 rebate from KM and it's **\$377,595.80**

Canon: The monthly cost (lease plus service plan) of **\$5,950** per month is **\$2,879.90** less than we're currently paying for the C6500s

Over the 60-month lease, the cost will be **\$357,000**

Add \$1,000 to ship both C6500s back and it's **\$358,000**

Recommendation: Canon will have cost us **\$19,595** less when the lease expires.

Conclusion

I recommend Canon because their printer:

- Costs **\$19,595** less over the term of the lease
- Meets our current requirements
- Is more convenient for creating full-bleed saddle-stitched and perfect-bound publications that are trimmed on three edges.

Konica Minolta (KM) printing solution

- bizhub PRESS C8000 digital color press
- Fusion PRO variable-data publishing solution
- Standalone Rosbach three-knife trimmer (the trimmer is not listed as an asset on the lease, so when the lease expires, the Rosbach will be a Patton-owned asset)

This configuration enables us to print perfect bound and saddle-stitched documents. The perfect bound books will be trimmed using the standalone Rosbach trimmer.

Lease payment (60-month fair market value program)

\$4,009.93 per month

Service plan

\$2,450 per month (derived from making a minimum of 50,000 color copies monthly)

Making 50,000 color copies per month at \$0.049/copy pays for the service plan (\$2,450). But if we don't use up all 50,000 copies in a month, we still pay \$2,450. (The service plan can be set up on a quarterly basis instead of monthly which would give us 3 months to use up 150,000 copies. Depending on how much our usage varies from month to month, the quarterly option could give us more flexibility.)

Current copies per month average 48,128 color and 63,453 B/W copies.

Service plan is a fixed price, all-inclusive program that includes all parts, labor, service calls (including print controller), and supplies/staples. Excludes paper.

Costs for copies

B/W copies: \$0.010 per copy (40% decrease from current cost)
50,000 B/W copies per month would cost \$500

Color copies: \$0.049 per copy (20% decrease from current cost)
50,000 color copies per month would cost \$2,450

Total (lease and service plan)

\$6,459.93 per month

Konica Minolta will satisfy the remaining payments left on both C6500 contracts. This includes the lease payments, late fees and property taxes: **\$24,923.32**.

KMBS will ship old C6500s back to leasing company at no additional charge.

Personal Property Tax

"Patton Electronics is MD Sales Tax Exempt and the new lease has been set up so that the Finance Company files and pays the personal property tax on behalf of Patton Electronics. Patton will not receive a Property Tax Invoice."

Canon printing solution

- imagePRESS C6010 digital color press
- Fusion PRO variable-data publishing solution

This configuration enables us to print and trim perfect bound and saddle-stitched documents. No external trimmer is required.

Lease payment (60-month fair market value program)

\$3,350 per month

Service plan

The service plan is paid for based on printing copies, but there is no minimum number of copies we have to print.

This is better for Patton because we won't lose money if in some months the print volume is low (unlike the KM plan in which we pay \$2,450 monthly even if we don't use up the allotted 50,000 copies in a month).

Service plan is a fixed price program (meaning that the price per copy won't increase) that includes all parts, labor, service calls (including print controller), and supplies **except staples** (KM service plan includes staples). Excludes paper.

Costs for copies

B/W copies: \$0.0126 per copy (**\$0.0026** higher than KM)
50,000 B/W copies per month would cost \$630

Color copies: \$0.052 per copy (**\$0.003** higher than KM)
50,000 color copies per month would cost \$2,600

Total (lease and service plan)

\$5,950 per month (total includes cost for printing 50,000 copies for comparison's sake with KM)

Canon will satisfy the remaining payments left on both C6500 contracts. This includes the lease payments, late fees and property taxes: **\$24,924**.

Patton will be responsible for shipping the old C6500s back to leasing company. This should cost from **\$400** to **\$500** per printer.

Personal Property Tax

"Patton Electronics is MD Sales Tax Exempt and the new lease has been set up so that the Finance Company files and pays the personal property tax on behalf of Patton Electronics. Patton will not receive a Property Tax Invoice."

KM bizhub PRESS C8000 features

Throughput

80 ppm color and B/W. 1200 dpi resolution

Monthly duty cycle

500,000 pages

Main unit paper capacity

Three Paper Trays. Up to 13 x 19 paper size. 500 sheets each

Print head

1200 x 1200 DPI-LED Print Head, 8-bit color

Fuser

C8000 has two fusers to maintain speed on heavier/lighter paper stocks and maintain an ability to run vinyl and linen stocks

Additional Paper Feed Unit (PF-704)

- Three Paper Trays. Up to 13x19 paper size.
- 64–350 g/m² Paper
- Additional 4,630 Sheet Capacity
- Air assist in each drawer Full vacuum feed and air knife separation

Saddle Finisher (SD-506)

Produce folded, stitched and trimmed booklets up to 200 pages (50 sheets).

Perfect Binder (PB-503)

- Perfect Bound Booklet Making Capabilities
- Able to produce 600 page books

Multi-Folding Unit (FD-503)

- Multi-fold capabilities including half fold, letter fold-in, letter fold-out, z-fold, double parallel fold and gate fold.
- 2/3 hole punch
- Cover Insertion

External Fiery Controller (EFI IC-306)

- EFI IC-306 External Controller supports 1,200 dpi/80 ppm (letter) engine speed; EFI System 9 Architecture; Fiery Driver 4.0; Hot Folders
- Graphics Art Package
- Compose/Impose Suite
- Spectrophotometer
- Color Profiler Suite

Canon imagePRESS C6010 features

Throughput

60 ppm color and B/W. 1200 dpi resolution

Monthly duty cycle

700,000 pages

Main unit paper capacity

2 trays 1,000 sheets each

Print head

1200 x 1200 4-Drum OPC Laser, 8-bit color

Fuser

Single fuser

Additional Paper Feed Unit (POD Deck A-1)

- 3 Paper Trays
- 64–325 g/m² paper
- Additional 4000 sheets
- Air separation and air feeding – Air feeding is more reliable

Saddle Finisher (AF2), Face Trimmer (D-1) and Two-Knife Trimmer (A-1)

Produce Folded 3-edged trimmed booklets up to 25 folded sheets or 100 pages. Canon can provide this solution in-line without having to implement a secondary manufacturing step of offline finishing.).

Perfect Binder (B-1)

- Provides 3-edge trimming—It should be noted the Konica provides trimming only on the cover
- The imagePRESS can produce 400 page Perfect Bound Books

Folding Unit (FD-503)

- No multi-fold capabilities
- 2/3 hole punch
- Cover Insertion

External Fiery Controller (EFI IC-306)

- Fiery A1200 with GA premium Package Fiery System EFI System R9.2 Architecture. Includes Hot Folders and Fiery Print Driver 4.1
- Graphics Art Package
- Compose/Impose Suite
- Spectrophotometer
- Color Profiler Suite

Trimming (offline only for full-bleed perfect bound and saddle-stitch finished books)

Three-side trim using automatic cutter with digital display. Offline cutting can be used with current C6500 and new C8000.

- Less downtime for production as maintenance does not interrupt any production printing applications of the C8000.
- Conveyor unit for automation of book cutting.
All catalogs and booklets will be smaller than the maximum 3/8" thickness that trimmer can trim.
- Customize size of books and catalogs:
4W to 12.5W x 7L to 16.6L inches

Physical dimensions

C8000 (includes paper feeder, main body, second fuser, inserter, saddle finisher & perfect binder):
233.58L x 37.4W x 68.9H inches

Rosbach trimmer: 126L x 36W x 45H inches

Power Requirements

C8000:

- Perfect Binder, Saddle Finisher, Relay Unit, Paper Feed, Main body require 7 110VAC/15A outlets
- Second fuser requires 220VAC/20A outlet

Trimmer: 230VAC/30A outlet

Reliability

KM

Konica does not publish the expected number of copies between visits (CBV), but according to Konica Minolta's Senior Print Production Specialist, Dennis Lubert, the C8000 is running about 39,800 copies between service calls

Recommendation

Konica Minolta and Canon reps assured me that their machines have a CBV of 40,000 copies, but I would recommend a service agreement spelling that out since estimates from both companies are based on unverifiable data.

Training

KM

Production Print Systems Analyst will train key operators on full C8000 operation, Fiery integration, and graphic arts applications.

Network integration & support

KM

Standard TCP/IP over Ethernet from Windows OS. Konica Minolta Systems Analyst will provide basic network connectivity at installation

Trimming (offline only for full-bleed perfect bound and saddle-stitch finished books)

Canon offers an in-line solution that is selected through the standard print driver. There will be no need to train operators on a second system

- Both the Saddle Finished Booklet maker and the Perfect Binder provide 3-edge trimming
- The Canon provides trimming on Perfect Bound Books up to a 1" inch book block. The Rosbach system can only trim up to 3/8th of an inch. Canon can trim all of the documents you can produce without introducing additional steps in the process.
- Customize size of books and catalogs:
8W to 11.7W x 5.4L to 8.5L inches

Physical dimensions

C6010 (includes POD deck, main body, perfect binder, saddle finisher, booklet trimmer, 2-knife trimmer and ImagePress server):
Approximately 288 inches long

Power Requirements

C6010:

- Perfect binder and POD Deck-A1 require 2 208VAC/15A outlets
- Main body requires a single-phase 208VAX/30A outlet
- Knife trimmer, Saddle finisher, ImagePRESS server and monitor require 4 120VAC/15A outlets

Canon

Canon's published expected number of CBV is 20,000. Based on their stated specs, the Canon C6010 is going to have more downtime than the Konica-Minolta C8000.

Brian Owens, Canon's Production Specialist, assured me that the published number is wrong, and that the actual CBV for the C6010 is approx 40,000 copies. He said they would sign a service agreement with us to that effect.

Canon

The Systems Engineer will train key operators on the C6010 operation, Fiery integration and graphic arts applications.

Canon

Standard TCP/IP over Ethernet. A Canon Business Solutions System Engineer will provide all training and support for your application

Maintenance

KM

Preventive Maintenance—Konica Minolta will perform a regularly scheduled preventative maintenance visit based upon the volume usage of the machine. The average PM on the C8000 is done every 500,000 copies.

Implementation

KM

KM will set up the C8000 so it can print full-bleed, perfect bound catalogs, along with setting up hot folders and other capabilities so the C8000 can take on the jobs the C6500s are currently doing.

Fusion PRO variable-data publishing solution

KM

Software System to support the creation of catalogs and set up entry level mailings.

- Nine included VDP output formats (PDF, PostScript, VDX, PPML, HP-PPML, VPS, JLYT, VIPP, Digimaster-PostScript) offer compatibility with the leading digital print workflows
- Included export plug-ins for Adobe InDesign and QuarkXPress
- Dynamic charts and tables for variable data in financial documents
- Advanced copy fitting, content overflow and automatic page insertion

References

KM

Boland: Spoke Will Trimble from Boland to find out why they chose Konica-Minolta over Canon. They're a commercial HVAC facility and a Trane rep, so they produce a lot of B/W training docs and had a few color printers are used for day-to-day of-fice work.

They had a half dozen Canon printers and plenty of problems with them. Constantly calling in for repairs. If they ran a lot of copies, the machines weren't reliable. Canon support was poor and unreliable.

They've had Konica for three years and are satisfied.

Ridge Printing: Visited Ridge Printing to see a Rosback trimmer in operation that's similar to the one Konica-Minolta is recommending. Seemed like a straightforward machine to operate and it would enable us to print edge-to-edge on the C8000 and the C6500 (only perfect binding on the C8000)

KMBS Tyson's Corner: Visited Konica Minolta to see the C8000 in action. Excellent printing with capabilities to print on vinyl and heavy stock for projects other than printing datasheets and user guides.

Canon

Canon performs preventative maintenance on every call. When technicians arrive on-site they are expected to go through the machine to see if any additional parts/assemblies are reaching end of life, if found they replace or repair them as needed.

Canon

Canon will set up your system to print both full bleed perfect and saddle finished books. This will include setting up a hot folder workflow as well

Canon

Software System to support the creation of catalogs and set up entry level mailings.

- Nine included VDP output formats (PDF, PostScript, VDX, PPML, HP-PPML, VPS, JLYT, VIPP, Digimaster-PostScript) offer compatibility with the leading digital print workflows
- Included export plug-ins for Adobe InDesign and QuarkXPress
- Dynamic charts and tables for variable data in financial documents
- Advanced copy fitting, content overflow and automatic page insertion

Canon

Medimmune: Spoke to Les about why they chose Canon over Konica and whether they're happy with Canon. Main reason: They were already using Canon when they decided to upgrade and had no problems with them.

"If it ain't broke, don't fix it" -- Les

L3 Stratus: Contacted Patrick Sullivan at L3 Stratus to find out why they opted for Canon rather than Konica. The Canon machines were air fed while the KM machines were not. That was the reason they went with Canon. That was just before Konica introduced their air-fed printers.