



**@Head2Head Comparison**

Make	Epson	
Model	Workforce 40	
Price	\$99.00	
Imaging	Ink-jet	
Classification	Color Printers Under \$250	
Resolution (dpi)	5700x1440	Network Scan <input type="checkbox"/>
BW/Color Print Speed (ppm)	38/38	Color Scan <input type="checkbox"/>
Monthly Duty Cycle (pages)	7,000	Network Print <input checked="" type="checkbox"/>
Max Media Length (inches)	44.0	Duplex Print <input type="checkbox"/>
Max Media Width	8.50	Duplex DF <input type="checkbox"/>
Walk-Up Fax <input type="checkbox"/>	Touch Screen <input type="checkbox"/>	USB 2.0 Port <input type="checkbox"/>


Epson's Workforce 40 uses what Epson calls "micro" piezo ink-jet imaging, a slight variation from the traditional thermal ink-jet printing. It boasts both standard WiFi wireless network connectivity and wired Ethernet (10/100 Base-T) network connectivity; however, duplexing is not available either standard or optional. Note though the printer's low power consumption--16 watts when printing. According to Epson, it can print laser-quality black text at its rated print speed of up to 38 ppm, making it appropriate for low B/W office-text and color print volumes.

**@Head2Head Comparison**

Make	Hewlett-Packard	
Model	Officejet 6000 Series	
Price	\$119.00	
Imaging	Ink-jet	
Classification	Color Printers Under \$250	
Resolution (dpi)	4800x1200	Network Scan <input type="checkbox"/>
BW/Color Print Speed (ppm)	32/31	Color Scan <input type="checkbox"/>
Monthly Duty Cycle (pages)	7,000	Network Print <input checked="" type="checkbox"/>
Max Media Length (inches)	30.0	Duplex Print <input checked="" type="checkbox"/>
Max Media Width	8.50	Duplex DF <input type="checkbox"/>
Walk-Up Fax <input type="checkbox"/>	Touch Screen <input type="checkbox"/>	USB 2.0 Port <input type="checkbox"/>


The Officejet 6000 Series is HP's latest state-of-the-art Officejet. It features an interesting twist on ink-jet imaging technology: instead of using pigment-based inks, it uses a pigment black ink and dye-based color inks. Dye-based inks are used by dye-sublimation color printers, which typically produce very vibrant color prints. The Officejet 6000 is available in two configurations. Both feature wired network connectivity, but the Officejet 6000 Wireless Printer (\$119) includes wireless network connectivity as well as automatic duplexing; the other configuration (\$89) does not.

**@Head2Head Comparison**

Make	Hewlett-Packard	
Model	Officejet Pro 8000 Series	
Price	\$149.00	
Imaging	Ink-jet	
Classification	Color Printers Under \$250	
Resolution (dpi)	4800x1200	Network Scan <input type="checkbox"/>
BW/Color Print Speed (ppm)	35/34	Color Scan <input type="checkbox"/>
Monthly Duty Cycle (pages)	15,000	Network Print <input checked="" type="checkbox"/>
Max Media Length (inches)	14.0	Duplex Print <input checked="" type="checkbox"/>
Max Media Width	8.00	Duplex DF <input type="checkbox"/>
Walk-Up Fax <input type="checkbox"/>	Touch Screen <input type="checkbox"/>	USB 2.0 Port <input type="checkbox"/>


The Officejet Pro 8000 is available in two configurations: a wireless network version (\$149.99) and a configuration without wireless connectivity (\$119.99). Both feature standard automatic duplexing, which is often not available in this segment, as well as standard wired Ethernet network connectivity. The printer is based on a 384 MHz CPU, so expect fast performance. HP markets optional Jetdirect print servers, which adds expanded security as well as compatibility with HP's industry-leading Web Jetadmin for enhanced network management and sharing.

**@Head2Head Comparison**

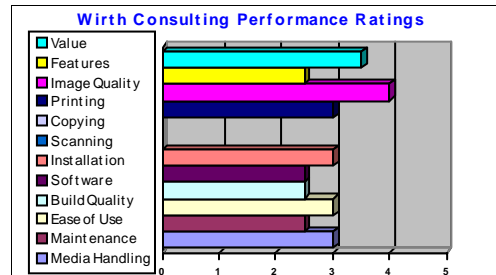
Make	Lexmark	
Model	Z1420	
Price	\$79.99	
Imaging	Ink-jet	
Classification	Color Printers Under \$250	
Resolution (dpi)	4800x1200	Network Scan <input type="checkbox"/>
BW/Color Print Speed (ppm)	24/18	Color Scan <input type="checkbox"/>
Monthly Duty Cycle (pages)	3,000	Network Print <input checked="" type="checkbox"/>
Max Media Length (inches)	14.0	Duplex Print <input type="checkbox"/>
Max Media Width	8.50	Duplex DF <input type="checkbox"/>
Walk-Up Fax <input type="checkbox"/>	Touch Screen <input type="checkbox"/>	USB 2.0 Port <input type="checkbox"/>

Lexmark's Z1420 is a compact color printer that features wireless network connectivity. While most printers in this segment utilize four-color printing (black, cyan, magenta, and black) it can be equipped with an ink cartridge for optional six-color printing. Adding two colors increases the available color gamut, and results in enhanced color imaging, making it particularly suitable for printing photos. Another capability that makes it especially suitable for producing photos is the ability to produce borderless prints in sizes from 4" x 6" up to 8.5" x 14". Automatic duplexing is not available.

**@Head2Head Comparison**

Make	Lexmark	
Model	Z2420	
Price	\$79.99	
Imaging	Ink-jet	
Classification	Color Printers Under \$250	
Resolution (dpi)	4800x1200	Network Scan <input type="checkbox"/>
BW/Color Print Speed (ppm)	25/18	Color Scan <input type="checkbox"/>
Monthly Duty Cycle (pages)	3,000	Network Print <input checked="" type="checkbox"/>
Max Media Length (inches)	14.0	Duplex Print <input type="checkbox"/>
Max Media Width	8.50	Duplex DF <input type="checkbox"/>
Walk-Up Fax <input type="checkbox"/>	Touch Screen <input type="checkbox"/>	USB 2.0 Port <input type="checkbox"/>

Lexmark's Z2420 comes in a compact package and features wireless network connectivity. While most printers in this segment utilize four-color printing (CYMK) it can be equipped with an ink-jet cartridge for optional six-color printing. The addition of two colors increases the available color gamut, and results in enhanced color imaging, making it particularly suitable for printing photos. Another capability that makes it especially suitable for producing photos is the ability to produce borderless prints in sizes from 4" x 6" up to 8.5" x 14". Automatic duplexing is not available.



**RATINGS SCOREBOARD** Total Ratings Score **29.5**

Black/Color Cost Per Page **\$0.02037** **\$0.06314**

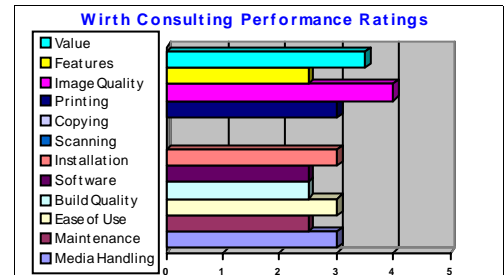
Total Cost of Ownership (Black/Color/Mixed)

100 pages/month	\$221.20	\$477.83	\$303.68
500 pages/month	\$710.02	\$1,046.08	\$813.82
1,000 pages/month	\$1,321.04	\$3,887.33	\$2,154.70
3,000 pages/month	\$3,765.12	\$11,463.98	\$6,268.09
5,000 pages/month	\$6,209.20	\$19,040.63	\$10,381.48

Strengths: Low B/W and color consumables' cost per page of 2.0 and 6.3 cents respectively using high-yield black, cyan, yellow, and magenta ink cartridges at street pricing. Individual ink cartridges (users replace only the depleted color). Low power consumption (16 watts) when printing.

Limitations: No automatic duplexing available as either standard or optional. Low capacity ink cartridges will require more frequent replacement.

Best Use: For small workgroups and home offices for both B/W and color-printing applications, and for users who do not require duplexing. Low B/W cost per page of 2.0 cents will make it more economical for producing B/W output than some other office-color printers in this segment. The Workforce 40 will be especially attractive to users looking for relatively fast print speeds and inexpensive ink cartridges.



**RATINGS SCOREBOARD** Total Ratings Score **34.0**

Black/Color Cost Per Page **\$0.02666** **\$0.09090**

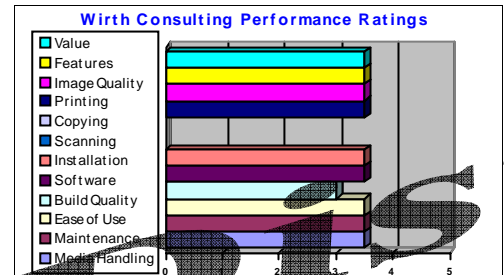
Total Cost of Ownership (Black/Color/Mixed)

100 pages/month	\$278.95	\$664.41	\$403.36
500 pages/month	\$918.75	\$1,482.52	\$1,095.61
1,000 pages/month	\$1,718.50	\$5,573.07	\$2,973.32
3,000 pages/month	\$4,917.50	\$16,481.21	\$8,684.35
5,000 pages/month	\$8,146.50	\$27,389.36	\$14,395.38

Strengths: Low B/W and color consumables' cost per page of 2.6 and 9.0 cents respectively. High-yield ink cartridges mean users will have to replace ink less frequently. Standard 802.11g wireless network interface and wired Ethernet network interface. Standard automatic duplexing. Dye-based color inks (not pigment inks) for enhanced color image quality. HP's Smart Web utility for printer-friendly Web printing, (eliminates blank areas and pages, etc.). Produce borderless images on up to 8.5" x 14" media. Print on up to 110 lb. index stock, as well as print on up to 8.5 x 30" banner sheets. USB cable included. HP markets an extensive array of papers, including glossy, recycled, photo, transparencies, ColorLok, etc. Individual ink cartridges (users replace only depleted color).

Limitations: Wirth Consulting has determined that this device does not have any notable limitations and should provide good functionality.

Best Use: Home, small office and workgroups for both B/W and color-printing applications; when equipped with Jetdirect print servers, the printer will be suitable for mid-size workgroups and enterprise use. Low B/W cost per page of 2.6 cents will make it more economical for producing B/W output than some other office-color printers in this segment.



**RATINGS SCOREBOARD** Total Ratings Score **34.5**

Black/Color Cost Per Page **\$0.02666** **\$0.09090**

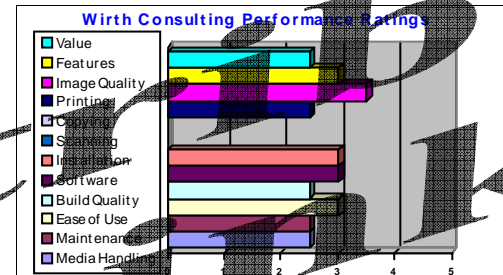
Total Cost of Ownership (Black/Color/Mixed)

100 pages/month	\$308.95	\$694.41	\$433.96
500 pages/month	\$948.75	\$1,512.52	\$1,125.51
1,000 pages/month	\$1,748.50	\$5,603.07	\$3,003.02
3,000 pages/month	\$4,947.50	\$16,511.21	\$8,714.05
5,000 pages/month	\$8,146.50	\$27,419.36	\$14,425.08

Strengths: Low B/W cost per page of 2.6 cents and relatively color cost per page of 9.0 cents. High-yield cartridges mean users must replace ink less frequently. Standard 802.11g wireless and Ethernet network interfaces. Standard automatic duplexing. Optional HP Jetdirect Ethernet and Fast Ethernet print servers for compatibility with HP's Web Jetadmin, the industry standard for network management, as well as with HP's Embedded Web Server, and Easy Printer Care, and for faster transmission of files. Jetdirect servers also add enhanced security, including SSL, TLS, SNMP v3. Separate ink cartridges for each color (CYMK), so if only one color is depleted, users do not need to replace other colors. Print on up to 110 lb. index stock, and produce borderless prints up to 8.5" x 11". 500-sheet max. paper capacity. HP Smart Web printing (consolidate content in order to eliminate blank spaces and blank pages).

Limitations: Wirth Consulting has determined that this device does not have any notable limitations and should provide good functionality.

Best Use: Home, small office and workgroups for both B/W and color-printing applications; when equipped with Jetdirect print servers, the printer will be suitable for mid-size workgroups and enterprise use. Low B/W cost per page of 2.6 cents will make it more economical for producing B/W output than some other office-color printers in this segment. Low color CPP and TCO makes this printer an exceptional value.



**RATINGS SCOREBOARD** Total Ratings Score **28.0**

Black/Color Cost Per Page **\$0.05488** **\$0.11736**

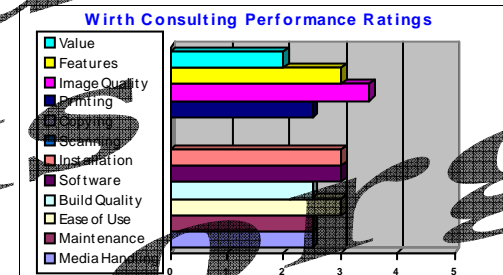
Total Cost of Ownership (Black/Color/Mixed)

100 pages/month	\$409.28	\$704.98	\$528.91
500 pages/month	\$1,725.45	\$3,340.46	\$1,746.81
1,000 pages/month	\$3,372.93	\$7,121.86	\$4,376.35
3,000 pages/month	\$9,458.81	\$21,205.60	\$13,570.66
5,000 pages/month	\$16,544.70	\$35,289.34	\$22,564.98

Strengths: Very low purchase price for a network printer (\$79.99). Standard 802.11g/b wireless printing (compatible with 802.11n); USB cable included for USB 2.0 port for direction connection to computer workstations. Optional 6-color printing; with 6-color printing, two additional ink colors are used, providing enhanced color images. Lexmark's Web Toolbar for printing printer-friendly Web pages (without large blank spaces, blank pages, etc.). Optional Fast Ethernet, MarkNet Gigabit and Fast Ethernet network interfaces for faster transmission of files. Lexmark's Imaging Studio software for editing photos. Produce borderless prints in sizes from 4" x 6" up to 8.5" x 14". Print on plain paper, card stock, glossy paper, recycled paper, iron-on transfer sheets, etc.

Limitations: No automatic duplexing standard or optional. All-in-one color print cartridge (users must replace all colors instead of just one color, even though other ink colors may not be depleted). Relatively high B/W and color consumables' cost per page. Relatively high Total Cost of Ownership.

Best Use: For small workgroups and home offices for very low-volume B/W and color printing applications, and where users may require or wish six-color printing for enhanced color imaging, and who do not require automatic duplexing. With its low acquisition cost, it will be especially appropriate for very budget-conscious users; however, users should also consider its relatively high TCO.



**RATINGS SCOREBOARD** Total Ratings Score **27.5**

Black/Color Cost Per Page **\$0.06718** **\$0.15116**

Total Cost of Ownership (Black/Color/Mixed)


100 pages/month	\$483.07	\$986.95	\$644.52
500 pages/month	\$2,095.39	\$2,347.39	\$2,157.60
1,000 pages/month	\$4,110.79	\$9,149.59	\$5,732.49
3,000 pages/month	\$12,172.39	\$27,288.79	\$17,039.08
5,000 pages/month	\$20,233.99	\$45,427.99	\$28,345.67

Strengths: Very low purchase price for a network printer (\$79.99). Standard 802.11g/b wireless printing (compatible with 802.11n); USB cable included for USB 2.0 port for direction connection to computer workstations. Optional 6-color printing; with 6-color printing, two additional ink colors are used, for enhanced color images. Lexmark's Web Toolbar for printing printer-friendly Web pages (without large blank spaces, blank pages, etc.). Lexmark's Imaging Studio software for editing photos (crop, rotate and resize photos, fix color, reduce red-eye effects). With scheduled printing, users can specify that the printer produce output at specified times (such as after business hours). Produce borderless prints in sizes from 4" x 6" up to 8.5" x 14". Very low power consumption (15 watts) when printing. Print on plain paper, card stock, glossy paper, recycled paper, iron-on transfer sheets, etc.

Limitations: No standard or optional automatic duplexing. All-in-one color print cartridge (users must replace all colors instead of just one color, even though other ink colors may not be depleted). High B/W and color consumables' cost per page of 15.1 cents.


Best Use: For small workgroups and home offices for very low-volume B/W and color printing applications, and where users may require or wish six-color printing for enhanced color imaging and automatic duplexing is not required. With its low acquisition cost, it will be especially appropriate for very budget-conscious users; however, users should also consider its relatively high TCO.

**@Head2Head Comparison**

Make	Ricoh	
Model	Aficio GX e3300N	
Price	\$179.00	
Imaging	Ink-jet	
Classification	Color Printers Under \$250	
Resolution (dpi)	3600x1200	Network Scan <input type="checkbox"/>
BW/Color Print Speed (ppm)	29/29	Color Scan <input type="checkbox"/>
Monthly Duty Cycle (pages)	10,000	Network Print <input checked="" type="checkbox"/>
Max Media Length (inches)	51.0	Duplex Print <input checked="" type="checkbox"/>
Max Media Width	8.50	Duplex DF <input type="checkbox"/>
Walk-Up Fax <input type="checkbox"/>	Touch Screen <input type="checkbox"/>	USB 2.0 Port <input type="checkbox"/>


Ricoh's Aficio GX e3300N Gelsprinter uses gel ink and piezo ink-jet technology, a variant of ink-jet printing. The GX e3300N, which was just introduced in June 2009, uses imaging technology that involves the use of viscous (versus the usual thinner liquid ink) that Ricoh says is waterproof and sun-resistant, as well as faster drying. Automatic duplexing is standard, as is a 10/100Base-TX Ethernet network interface. The printer can handle up to 140 lb. index, making it suitable for producing collaterals (such as marketing materials). Wirth Consulting has also found Gelsprinter printers to be sturdily built.

**@Head2Head Comparison**

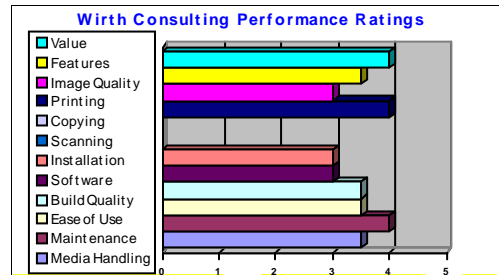
Make	Ricoh	
Model	Aficio GX e3350N	
Price	\$249.00	
Imaging	Ink-jet	
Classification	Color Printers Under \$250	
Resolution (dpi)	3600x1200	Network Scan <input type="checkbox"/>
BW/Color Print Speed (ppm)	29/29	Color Scan <input type="checkbox"/>
Monthly Duty Cycle (pages)	10,000	Network Print <input checked="" type="checkbox"/>
Max Media Length (inches)	51.0	Duplex Print <input checked="" type="checkbox"/>
Max Media Width	8.50	Duplex DF <input type="checkbox"/>
Walk-Up Fax <input type="checkbox"/>	Touch Screen <input type="checkbox"/>	USB 2.0 Port <input type="checkbox"/>

Ricoh's Aficio GX e3350N Gelsprinter uses gel ink and piezo ink-jet technology, and is essentially a more powerful version of the Aficio GX e3300N, both of which were just introduced in June 2009. It features a faster CPU than the Aficio GX e3300N (400 versus 192 MHz), more memory (64 versus 16 MB), and PCL 5c and 6 drivers instead of Ricoh's RPCS driver. As such, the Aficio GX 3350N is priced higher (\$249 versus \$179). As with that other model, the GX e3350N can handle up to 140 lb. index stock. Wirth Consulting has also found Gelsprinter printers to be well-built (sturdy).

**@Head2Head Comparison**

Make	Ricoh	
Model	Aficio GX2500	
Price	\$149.00	
Imaging	Ink-jet	
Classification	Color Printers Under \$250	
Resolution (dpi)	3600x1200	Network Scan <input type="checkbox"/>
BW/Color Print Speed (ppm)	28/28	Color Scan <input type="checkbox"/>
Monthly Duty Cycle (pages)	6,000	Network Print <input checked="" type="checkbox"/>
Max Media Length (inches)	11.0	Duplex Print <input checked="" type="checkbox"/>
Max Media Width	8.50	Duplex DF <input type="checkbox"/>
Walk-Up Fax <input type="checkbox"/>	Touch Screen <input type="checkbox"/>	USB 2.0 Port <input type="checkbox"/>

Ricoh's Aficio GX2500 Gelsprinter uses piezo ink-jet technology, a variant of ink-jet printing. It uses viscous gel-like ink (versus the usual thinner liquid ink) that Ricoh says is waterproof and sun-resistant, as well as faster drying. In its standard configuration, it is a local printer using Ricoh's Refined Print Command Stream (RPCS) GDI print driver (network interface is optional). Automatic duplexing is standard. Of note is that the printer can handle up to 140 lb. index stock, making it suitable for producing collaterals (such as marketing materials). Wirth Consulting has also found Gelsprinter products to be well-built and sturdy.



<b>RATINGS SCOREBOARD</b>	<b>Total Ratings Score 35.0</b>		
Black/Color Cost Per Page	\$0.01719	\$0.07538	
<b>Total Cost of Ownership (Black/Color/ Mixed)</b>			
100 pages/month	\$282.13	\$631.26	\$394.52
500 pages/month	\$694.63	\$1,309.66	\$890.64
1,000 pages/month	\$1,210.25	\$4,701.63	\$2,350.30
3,000 pages/month	\$3,272.75	\$13,746.89	\$6,696.49
5,000 pages/month	\$5,335.25	\$22,792.15	\$11,042.67

Strengths Limitations

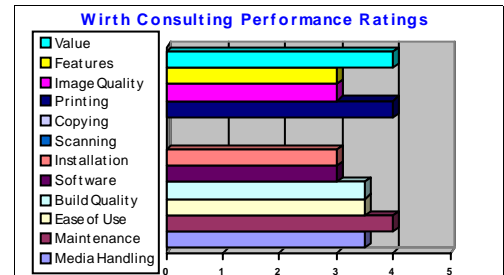
- Very low B/W and color consumables' cost per page of 1.7 and 7.5 cents respectively (based on available street pricing).
- Relatively low Total Cost of Ownership.
- No drying time required for ink in duplex mode.
- Print on up to 140 lb. index stock, making it useful for graphic arts and producing collaterals (such as marketing materials).
- Individual ink cartridges (only replace the color that is depleted).
- LCD display indicates remaining ink levels.
- Standard automatic duplexing.
- Web Image Monitor and SmartDeviceMonitor for network monitoring and management. @Remote for network fleet management; provides automatic alerts that notify service personnel when service or supplies is required. @Remote also provides remote meter reads for the printer, as well as usage data for the printer and most third-party network devices.

Wirth Consulting has determined that this device does not have any notable limitations and should provide good functionality.

Notes  
Rated print speed is in draft mode.

**Best Use**

For small office workgroups and home offices for both B/W and color-printing applications, as well as for some workgroup and enterprise use at lower volumes. Low B/W cost per page of 1.7 cents will make it more economical for producing B/W output than some other office-color printers in this segment. The ability to print on up to 140 lb. index, as well as print on banner sheets up to 8.5" x 51", will also make it suitable for some in-house graphic arts. Very low CPP and TCO makes this an outstanding value.



<b>RATINGS SCOREBOARD</b>	<b>Total Ratings Score 34.5</b>		
Black/Color Cost Per Page	\$0.01719	\$0.07538	
<b>Total Cost of Ownership (Black/Color/ Mixed)</b>			
100 pages/month	\$352.13	\$701.26	\$463.82
500 pages/month	\$764.63	\$1,379.66	\$959.94
1,000 pages/month	\$1,280.25	\$4,771.63	\$2,419.60
3,000 pages/month	\$3,342.75	\$13,816.89	\$6,765.79
5,000 pages/month	\$5,405.25	\$22,862.15	\$11,111.97

Strengths Limitations

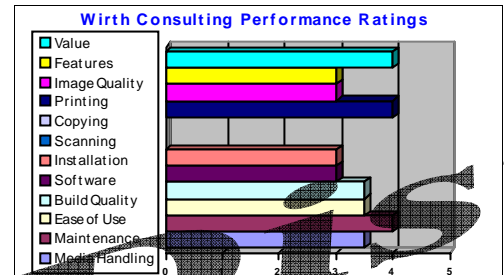
- Low B/W and color consumables' cost per page of 1.7 and 7.5 cents respectively (based on available street pricing).
- Print on up to 140 lb. index stock, making it useful for graphic arts and producing collaterals (such as marketing materials).
- No drying time required for ink in duplex mode.
- Individual ink cartridges (only replace the color that is depleted).
- LCD display indicates remaining ink levels.
- Standard automatic duplexing.
- Web Image Monitor and SmartDeviceMonitor for network monitoring and management. @Remote for network fleet management; provides automatic alerts that notify service personnel when service or supplies is required; also provides remote meter reads for the printer; provides usage data for the printer and most third-party network devices.

Wirth Consulting has determined that this device does not have any notable limitations and should provide good functionality.

Notes  
Rated print speed is in draft mode.

**Best Use**

For small workgroups and home offices for both B/W and color-printing applications, as well as for some workgroup and enterprise use at lower volumes. Low B/W cost per page of 1.7 cents will make it more economical for producing B/W output than some other office-color printers in this segment. The ability to print on up to 140 lb. index, as well as print on banner sheets up to 8.5" x 51", will also make it suitable for some in-house graphic arts. Low color and B/W TCO and robust construction make this printer an outstanding value.



<b>RATINGS SCOREBOARD</b>	<b>Total Ratings Score 32.0</b>		
Black/Color Cost Per Page	\$0.02200	\$0.13000	
<b>Total Cost of Ownership (Black/Color/ Mixed)</b>			
100 pages/month	\$281.00	\$929.00	\$492.00
500 pages/month	\$800.00	\$3,099.00	\$1,226.61
1,000 pages/month	\$1,469.00	\$7,949.00	\$3,592.71
3,000 pages/month	\$4,109.00	\$23,549.00	\$10,483.11
5,000 pages/month	\$6,749.00	\$39,149.00	\$17,373.51

Strengths Limitations

- Low B/W cost per page of 2.2 cents (based on available street pricing). High-yield black, cyan, magenta and yellow ink cartridges mean users must replace ink cartridges less frequently.
- Separate ink cartridges (only replace the depleted color).
- No drying time required for ink in duplex mode.
- Control panel display indicates current levels for each color ink.
- With Level Color Mode, ink density is reduced up to 65% for graphics and images, without affecting text readability, making it appropriate for proofing and for conserving ink.
- Web Image Monitor and SmartDeviceMonitor for network monitoring and management. @Remote for network fleet management; provides automatic alerts that notify service personnel when service or supplies is required. @Remote also provides remote meter reads for the printer, as well as usage data for the printer and most third-party network devices.

No automatic duplexing available as either standard or optional.

Notes  
Rated print speed is in draft mode.

**Best Use**

For small workgroups and home offices for both B/W and color-printing applications, as well as some workgroup and enterprise use at lower volumes. Low B/W cost per page of 2.2 cents will make it more economical for producing B/W output than some other office-color printers in this segment.

