BLI Print Productivity Analysis
Xerox WorkCentre Pro 45

Buyers Laboratory Inc. (BLI) has been commissioned to test the print productivity/efficiency of the Xerox WorkCentre Pro 45 versus major competitive systems. While Xerox has commissioned the following report, the testing was objectively done by Buyers Lab with no direction from Xerox as to the selection of jobs used to represent a common office environment. **The report was prepared by Buyer's Laboratory Inc.**

Test Results Summary

This report examines the print productivity/efficiency of the Xerox WorkCentre Pro 45 in the tested office environment. It also compares the print productivity/efficiency of the Xerox WorkCentre Pro 45 to the Canon imageRUNNER 5000N, Canon imageRUNNER 5000i, Canon imageRUNNER 5000i , Hewlett-Packard 9000 MFP, Lexmark W820, Ricoh Aficio 1045 and the Sharp AR-M450.

Testing showed that the Xerox WorkCentre Pro 45 was 1.8 times faster than the Canon imageRUNNER 5000N, 1.7 times faster than the Canon imageRUNNER 5000i, 1.8 times faster than the Canon imageRUNNER 5020, 1.4 times faster than the hp LaserJet 9000mfp, 2.2 times faster than Konica 7145, 1.7 times faster than the Lexmark W820, 3.1 times faster than the Ricoh Aficio 1045, 3.0 times faster than the Ricoh Aficio 2045, and 2.7 times faster than the Sharp AR-M450. Each product was operated in default mode with resolution set at 600 dpi, and multiple jobs from a BLI test suite were sent in series to each device. Output from each application consisted of a mix of single and multiple stapled sets with a banner page for each job in the test suite. The order in which jobs were sent was randomly selected.

Buyers Laboratory Inc. Overview

Buyers Laboratory Inc. (BLI), which is located in Hackensack, NJ, has been testing office equipment for more than 40 years and is the nation's leading independent office equipment test lab and business consumer advocate. In addition to providing purchasing advice and consulting services to business consumers, BLI conducts the industry's most comprehensive in-house testing of multifunctional imaging products, printers and fax machines. BLI also provides a range of additional testing services that includes testing of office equipment consumables and supplies, paper, furniture and electronic components, as well as simulated environmental testing, transportation testing and vibration testing. More information on BLI can be obtained by visiting www.buyerslab.com or calling 201-488-0404.

Test Suite:

Testing was conducted using 15 common office jobs that were selected by BLI. We believe the 15 jobs that were selected represent a common office environment. Jobs consist of Microsoft Word, PowerPoint, Excel, Outlook (E-mail) and Adobe Acrobat. The operating system and client workstation software used in the test is Windows 2000. PCL 5e was selected for the page description language because it is included with network offerings for all tested systems. (PostScript is an option for some of the tested systems). Note: Testing was conducted by Buyers Laboratory Inc. (BLI), with each product operating in default mode and resolution set at 600 dpi. Multiple jobs from BLI's test suite were sent in series to each device, with output from each application consisting of a mix of single and multiple stapled sets with a banner page for each job in the suite. Times were clocked from a paused state until the trail edge of the last page of the last job was ejected onto the exit tray. Test PCs were Windows 2000, Pentium 4, 2.2 GHZ, 256 MB.

BLI Print Productivity Test Results
Xerox WorkCentre Pro 45

BLI Test Results: Xerox WorkCentre Pro 45
Actual Performance in pages per minute: 37.01 PPM
Rated Speed of WorkCentre Pro 45: 45 PPM
Total efficiency: 82% (Tested speed/Rated Speed)

BLI Test Suite

File Name	Application	File Size	Pages	Sets	Simplex / Duplex
Test File 1	Microsoft Word	21.5 kb	2	1	Simplex
Test File 2	Microsoft PowerPoint	96.5 kb	5	3	Duplex
Test File 3	Microsoft Word	28.0 kb	3	1	Simplex
Test File 4	Microsoft PowerPoint	141 kb	10	1	Duplex
Test File 5	Microsoft Word	28.0 kb	3	1	Simplex
Test File 6	Microsoft Word	21.5 kb	2	1	Simplex
Test File 7	Adobe Acrobat	2.04 MB	28	1	Duplex
Test File 8	Microsoft Outlook	96.0 kb	1	1	Simplex
Test File 9	Microsoft Outlook	96.0 kb	2	1	Simplex
Test File 10	Microsoft Excel	37.5 kb	2	1	Simplex
Test File 11	Microsoft Outlook	22.0 kb	2	1	Simplex
Test File 12	Microsoft Outlook	11.5 kb	1	1	Simplex
Test File 13	Adobe Acrobat	2.42 MB	2	2	Simplex
Test File 14	Microsoft Excel	37.5 kb	2	1	Simplex
Test File 15	Microsoft Word	30.5 kb	4	1	Simplex

Note: Print productivity testing was conducted by Buyers Laboratory Inc. (BLI), with each product operating in default mode and resolution set at 600 dpi. Multiple jobs from a BLI test suite were sent in series to each device with output consisting of a mix of single and multiple stapled sets with a banner page for each job in the test suite. The order in which jobs were sent was randomly selected.
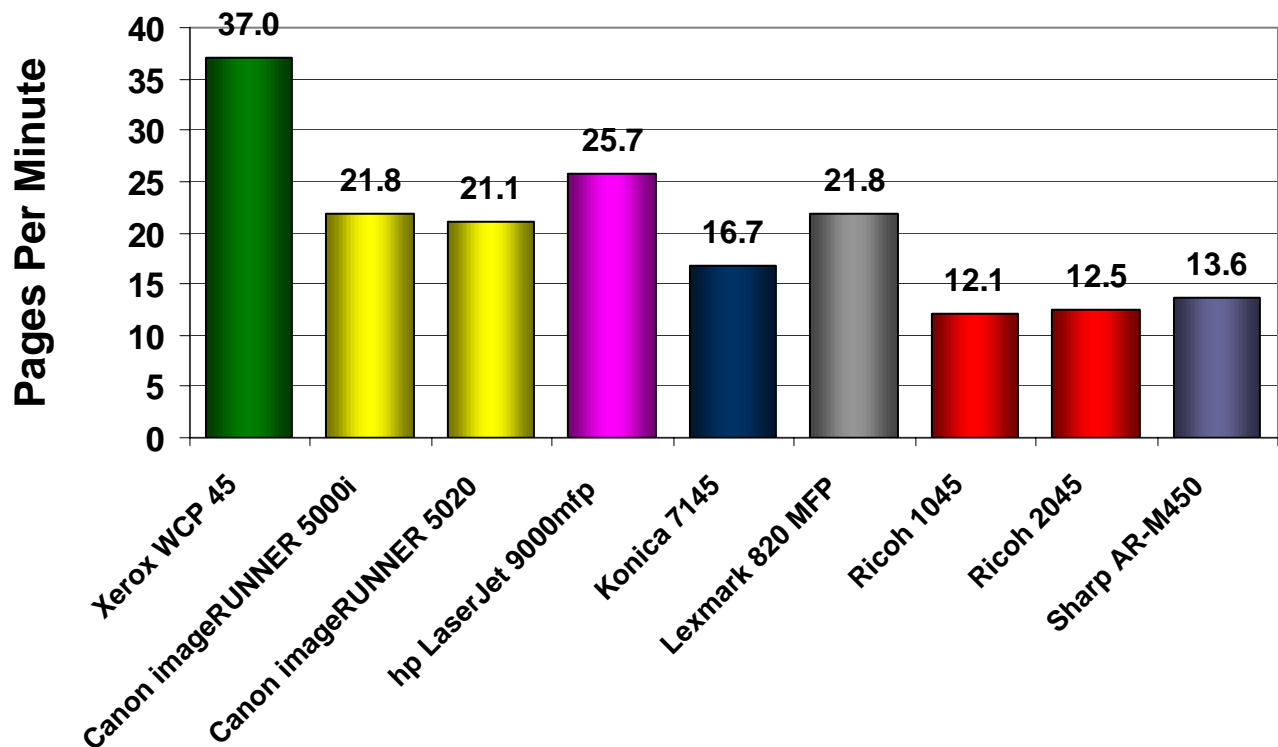
BLI Test Results
Printing Productivity Comparisons
Xerox WorkCentre Pro 45 Versus Competitors

The Xerox WorkCentre Pro 45 was up to 3 times faster than the competition, as tested by Buyers Lab. In a busy networked office environment, the Xerox WorkCentre Pro 45 manages multiple jobs with little effort and offers strong productivity advantages over the competitive systems that were tested.

Network Printing Performance

Bar chart — Pages Per Minute:

Device	Pages Per Minute
Xerox WCP 45	37.0
Canon imageRUNNER 5000i	21.8
Canon imageRUNNER 5020	21.1
hp LaserJet 9000mfp	25.7
Konica 7145	16.7
Lexmark 820 MFP	21.8
Ricoh 1045	12.1
Ricoh 2045	12.5
Sharp AR-M450	13.6

<u>*Note</u>: Print productivity was conducted by Buyers Laboratory Inc. (BLI), with each product operating in default mode and resolution set at 600 dpi. Multiple jobs from a BLI test suite were sent in series to each device, with output consisting of a mix of single and multiple stapled sets with a banner page for each job. The order in which jobs were sent was randomly selected.
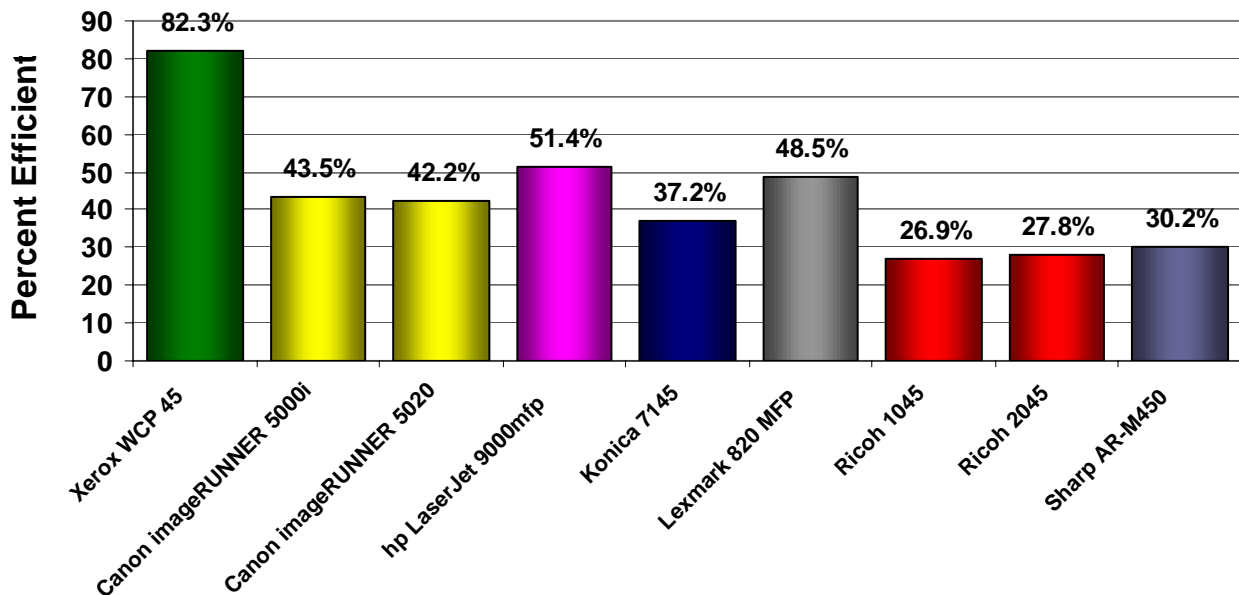
BLI Print Productivity Test Results
Printing Efficiency
Xerox WorkCentre Pro 45 Versus Competitors

Another way to look at performance is to examine the efficiency of the system. Efficiency is another factor in determining the price/value relationship of a system. **Efficiency** is determined by dividing the **tested speed** by the **rated speed** of the system. For example, a system that is rated at 40 PPM but actually runs at 20 pages per minute is running at 50% efficiency (20 PPM/40 PPM), producing one half the output of the rated speed of the device. BLI test results show that the **Xerox WorkCentre Pro 45 was 82% efficient** versus the competition that ranged from 27% efficient for the Ricoh 1045 and 51.4% for the hp LaserJet 9000mfp.

Network Printing Efficiency
(Tested Performance / Rated Speed)

Percent Efficient

Model	Percent Efficient
Xerox WCP 45	82.3%
Canon imageRUNNER 5000i	43.5%
Canon imageRUNNER 5020	42.2%
hp LaserJet 9000mfp	51.4%
Konica 7145	37.2%
Lexmark 820 MFP	48.5%
Ricoh 1045	26.9%
Ricoh 2045	27.8%
Sharp AR-M450	30.2%

<u>*Note</u>: Print productivity was conducted by Buyers Laboratory Inc. (BLI), with each product operating in default mode and resolution set at 600 dpi. Multiple jobs from a BLI test suite were sent in series to each device with output consisting of a mix of single and multiple stapled sets with a banner page for each job. The order in which jobs were sent was randomly selected. The order in which jobs were sent was randomly selected.

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