

BUYERS LABORATORY INC.

Print Productivity Analysis

Xerox WorkCentre® / WorkCentre® Pro 232



Buyers Laboratory Inc. (BLI) has been commissioned to test the print productivity/efficiency of the Xerox WorkCentre Pro 232 versus major competitive systems using banner pages with a BLI test suite. The testing was performed on the Xerox WorkCentre Pro but test results also apply to the Xerox WorkCentre system. While Xerox has commissioned the following report, the testing was objectively done by Buyers Laboratory who determined the test methodology and developed a test suite that includes banner pages with a mix of jobs that are typically printed in an office environment. *This report was prepared by Buyers Laboratory Inc.*

Test Results Summary

This report examines the print productivity/efficiency of the Xerox WorkCentre Pro 232 with Professional Finisher in the tested office environment and compares it to that of the Canon imageRUNNER 3300, Canon imageRUNNER 4570, HP LaserJet 4345mfp, Lexmark T632, Ricoh Aficio 2045, and Toshiba e-STUDIO35 in the tested environment.

Testing showed that the Xerox WorkCentre Pro 232 was 2.4 times faster than the Canon imageRUNNER 3300, 2.1 times faster than the Canon imageRUNNER 4570, 1.5 times faster than the HP LaserJet 4345mfp, 1.3 times faster than the Lexmark T632, 2.4 times faster than the Ricoh Aficio 2045, and 2.3 times faster than the Toshiba e-STUDIO35. Each product was operated in default mode with resolution set at 600 dpi, and multiple jobs from the 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 and was the same for each model.

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 document imaging products, printers and fax machines. BLI also provides a range of additional testing services that includes testing of office equipment consumables and supplies, office papers, and pre-launch product evaluations and product performance certification. 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 as being representative of common office print applications. Jobs consisted of Microsoft Word, PowerPoint, Excel, Outlook (E-mail) and Adobe Acrobat. The client operating system used in the test was 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.

Xerox WorkCentre® / WorkCentre® Pro 232 Test Results*



Actual Performance in pages per minute	30.37 PPM
Rated Speed of Xerox WorkCentre Pro 232	32 PPM
Total Efficiency (Tested speed/Rated Speed)	94.9%

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 and was the same for each model.

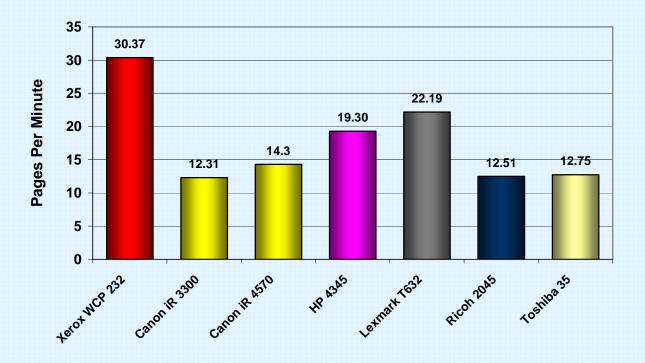
Print Productivity Comparisons

Xerox WorkCentre® / WorkCentre® Pro 232 Versus Competitors*



The Xerox WorkCentre Pro 232 was up to 2.4 times faster than the respective competitors as tested by Buyers Lab, indicating that in a busy networked office environment, the Xerox WorkCentre Pro 232 is capable of handling multiple jobs such as the BLI test suite very efficiently and with strong productivity advantages over the competitive systems that were tested. The Xerox WorkCentre Pro 232 produced the BLI test suite at 30.37 pages per minute (PPM) compared with the respective competitors, which completed the same jobs at speeds that ranged from 12.31 PPM to 22.19 PPM.

Network Print Productivity



*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 and was the same for each model.

Print Efficiency

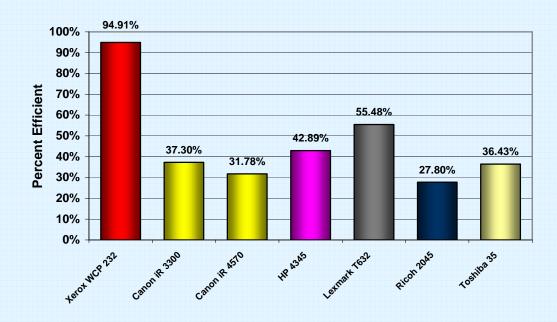
Xerox WorkCentre® / WorkCentre® Pro 232 Versus Competitors*



Another way to look at performance is to examine the efficiency of the system, which 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. These BLI test results show that when printing the BLI test suite the **Xerox WorkCentre Pro 232 was 94.91% efficient** versus the **competitive systems**, **which ranged from a low of 27.80% efficiency to a high of 55.48% efficiency**.

Network Print Efficiency

(Test Performance / Rated Speed)



*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 and was the same for each model.

XEROX[®], CopyCentre[®], WorkCentre[®], and WorkCentre[®] Pro are trademarks of XEROX CORPORATION.