HP Officejet Pro
K5000 Series Printer
L7000 Series All-in-One

Throughput Speed Performance

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Throughput Speed Performance — Methodology

Compare Throughput Print Times

Tested Devices

° *HP K5400 Printer (part of K5000 Series) and*

° *HP L7780 All-in-One (part of L7000 Series)*

° *Samsung CLP-300 color laser printer*

° *Brother MFC-9420CN, and Epson AcuLaser CX11NF color laser AiOs*

Test Documents

° *Color: "Pie V" HP two-page Word document with mixed text & graphics*
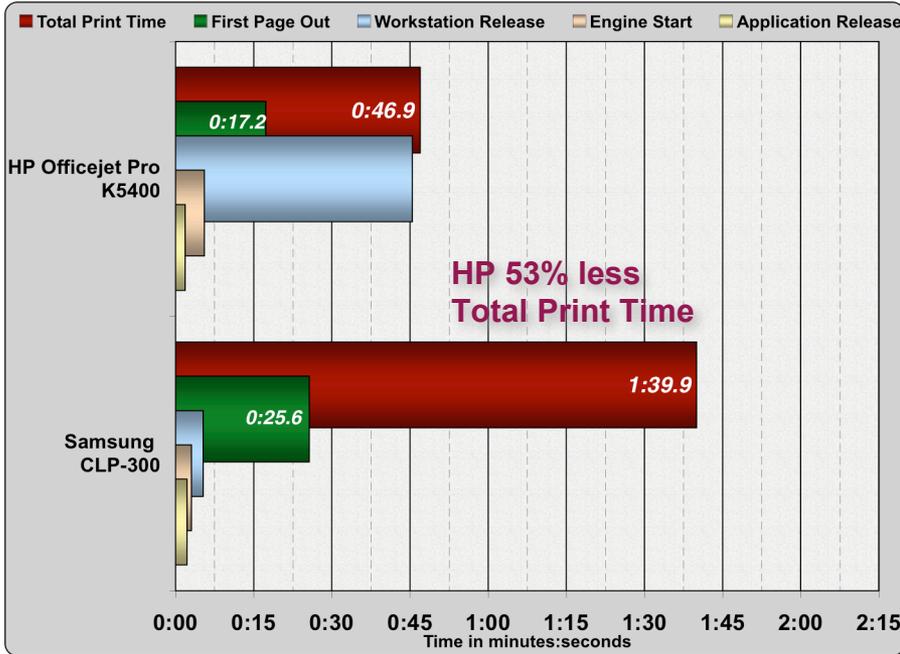
Test Procedure

° *Test document sent as a two-page, three-copy (six prints) job*

- Print Modes: plain paper default from application Microsoft Word 2003 Professional Edition
- Timings averaged over several iterations assure accurate results

° *Test document printed from printer READY and POWERSAVE modes*

- POWERSAVE mode after intervals of at least 30 minutes

° *Measurement intervals begin with request-to-print: clicking PRINT in application dialog box*

- **Application Release:** application has completed creating the print file and is freed to perform other tasks
- **Workstation Release:** the print file disappears from the printer's queue
- **Engine Start:** a perceptible sound or mechanical action of the printer
- **First Page Out:** last edge of the first page drops into the output tray
- **Total Print Time:** when the last page drops into the output tray

° *Test Environment*

- PC configuration: 3.0 GHz Dell OptiPlex Pentium 4 workstation with a 40 GB hard drive and 512 MB RAM running Windows XP
- Connectivity: High Speed USB 2.0 communication with each printer, one-at-a-time
- Printer Drivers: HP-provided prior to commercial release; otherwise then current version from manufacturer websites
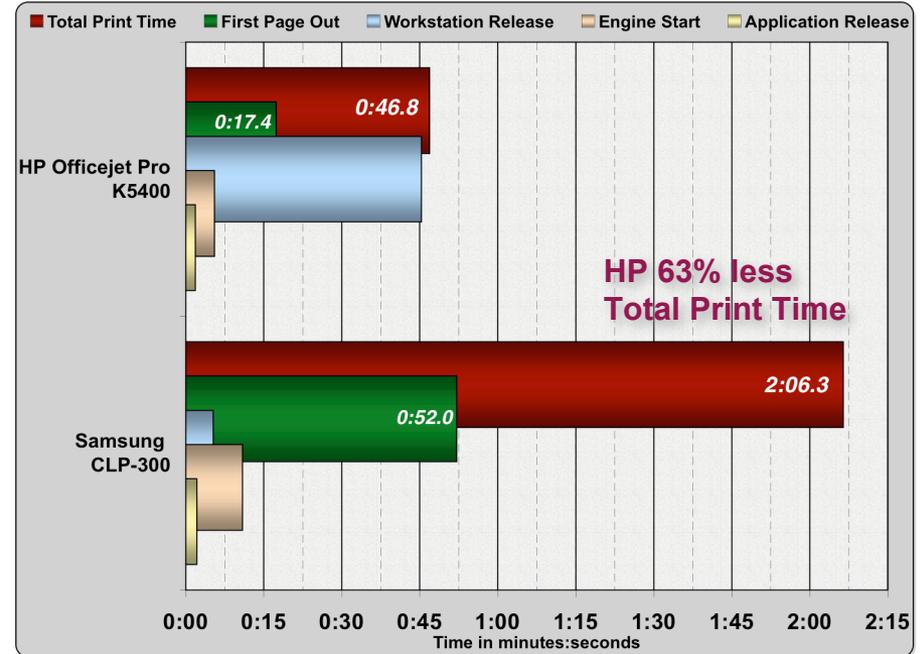
Throughput Speed Performance: HP Officejet Pro K5000 Series Color Inkjet and Samsung CLP-300 Color Laser Printer

MS WORD, MIXED TEXT & GRAPHICS
2-Pages, 3-Copies

from Ready mode   from Powersave mode

Legend: ■ Total Print Time ■ First Page Out ■ Workstation Release ■ Engine Start ■ Application Release

Ready mode chart:
- HP Officejet Pro K5400: First Page Out 0:17.2, Total Print Time 0:46.9
- Samsung CLP-300: First Page Out 0:25.6, Total Print Time 1:39.9
- HP 53% less Total Print Time

Powersave mode chart:
- HP Officejet Pro K5400: First Page Out 0:17.4, Total Print Time 0:46.8
- Samsung CLP-300: First Page Out 0:52.0, Total Print Time 2:06.3
- HP 63% less Total Print Time

Time in minutes:seconds

HP Officejet Pro K5000 Series Color Inkjet Printer
had faster FIRST PAGE OUT and faster TOTAL PRINT TIME
than Samsung CLP-300 Color Laser Printer
from both *READY* and *POWERSAVE* modes

HP Officejet Pro K5000 Series TOTAL PRINT TIME from POWERSAVE was before Samsung CLP-300's FIRST PAGE OUT

SpencerLAB PERFORMANCE TESTED

Throughput Speed Performance: HP Officejet Pro L7000 Series Color Inkjet AiO, Brother MFC-9420CN, *and* Epson AcuLaser CX11NF

MS WORD, MIXED TEXT & GRAPHICS
2-Pages, 3-Copies

from Ready mode

Legend: ■ Total Print Time ■ First Page Out ■ Workstation Release ■ Engine Start ■ Application Release

HP Officejet Pro L7780 AiO
- 0:15.4
- 0:43.8

HP 25% less Total Print Time

Brother MFC-9420CN
- 0:20.8
- 0:58.1

HP 43% less Total Print Time

Epson AcuLaser CX11NF
- 0:17.7
- 1:16.9

Axis: 0:00 0:15 0:30 0:45 1:00 1:15 1:30 1:45

Time in minutes:seconds

from Powersave mode

Legend: ■ Total Print Time ■ First Page Out ■ Workstation Release ■ Engine Start ■ Application Release

HP Officejet Pro L7780 AiO
- 0:15.8
- 0:44.2

HP 49% less Total Print Time

Brother MFC-9420CN
- 0:49.9
- 1:27.2

HP 54% less Total Print Time

Epson AcuLaser CX11NF
- 0:37.1
- 1:36.3

Axis: 0:00 0:15 0:30 0:45 1:00 1:15 1:30 1:45

Time in minutes:seconds

HP Officejet Pro L7000 Series Color Inkjet AiO
had faster FIRST PAGE OUT and faster TOTAL PRINT TIME
than Brother MFC-9420CN and Epson AcuLaser CX11NF AiOs
from both *READY* and *POWERSAVE* modes

HP Officejet Pro L7000 Series TOTAL PRINT TIME from POWERSAVE was before Brother MFC-9420's FIRST PAGE OUT

All testing performed using default driver settings; L7780 is a model of L7000 Series
Not all HP Officejet Pro L7000 Series models are available in all countries or regions
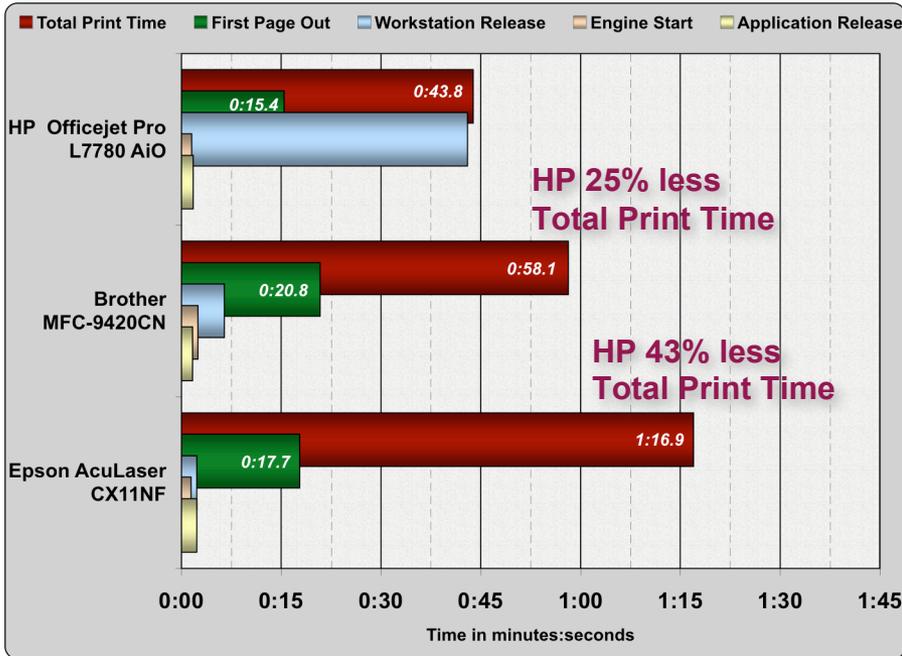
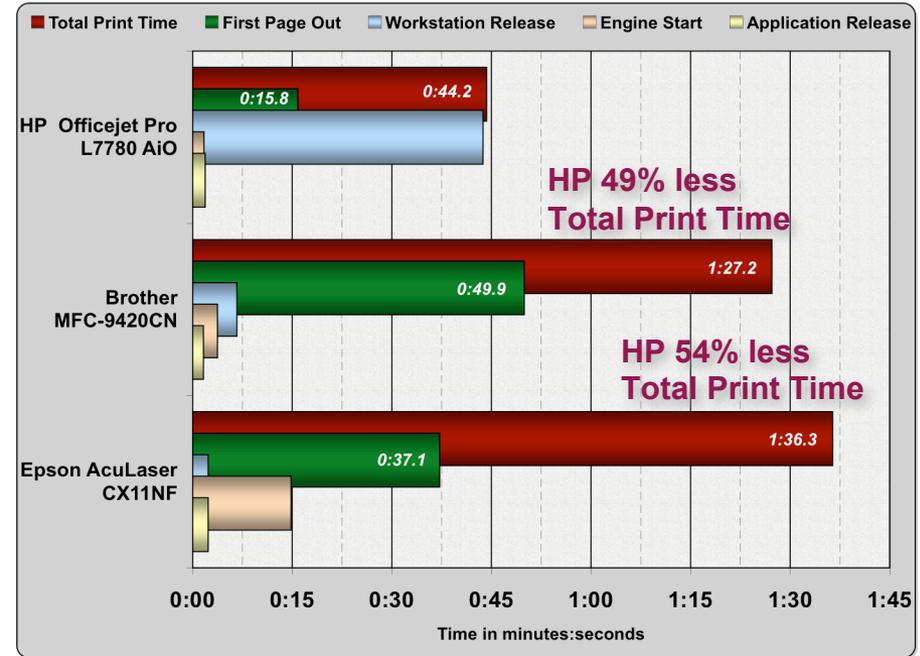Independent testing by *SpencerLab* Digital Color Laboratory was commissioned by Hewlett-Packard Company

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PERFORMANCE TESTED

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