HP DesignJet T2x0/T6x0/Studio vs.

Canon TA-20/TA-30 & Epson SC-T3100/T5100



Meet the competition

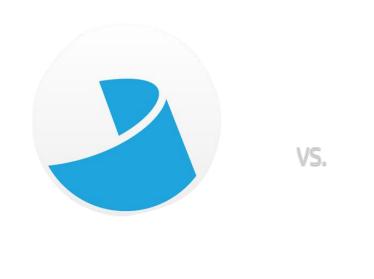
HP DesignJet T2x0/T6x0 and HP DesignJet Studio



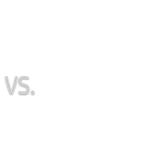
Job submission

Meet the competition

Job submission software









HP Click

Canon Direct Print & Share

Epson Print Automate

How does HP Click compare vs. Canon Direct Print & Share?



- Driverless
- Automatic source selection (roll/tray)
- Real print preview
- Automatic rotation
- / PDF error check
 - missing fonts
 low resolution
 - non visible layersprotected by password/cannot be printed
 - non printable layers > corrupted file
 - missing references
- Clipping detection
- compatible





- NOT driverless
- NO automatic source selection (no tray)
- NOT real print preview
- NO automatic rotation
- NO PDF error check
- NO Clipping detection
- Not compatible wit.





How does HP Click compare vs. Epson Print Automate?



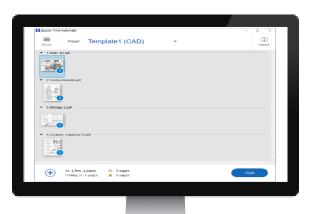
- **Driverless**
- **Automatic source selection (roll/tray)**
- **Real print preview**
- PDF error check
 - missing fonts
- low resolution
- non visible layers
- protected by password/cannot be printed
- non printable layers⊁ missing references
 - corrupted file



EPSONPrint Automate

- **NOT** driverless
- **NO** automatic source selection (manual)
- NOT real ,thumbnail preview
 - NO PDF error check







Feature-to-feature software comparison



HP Click

VS.

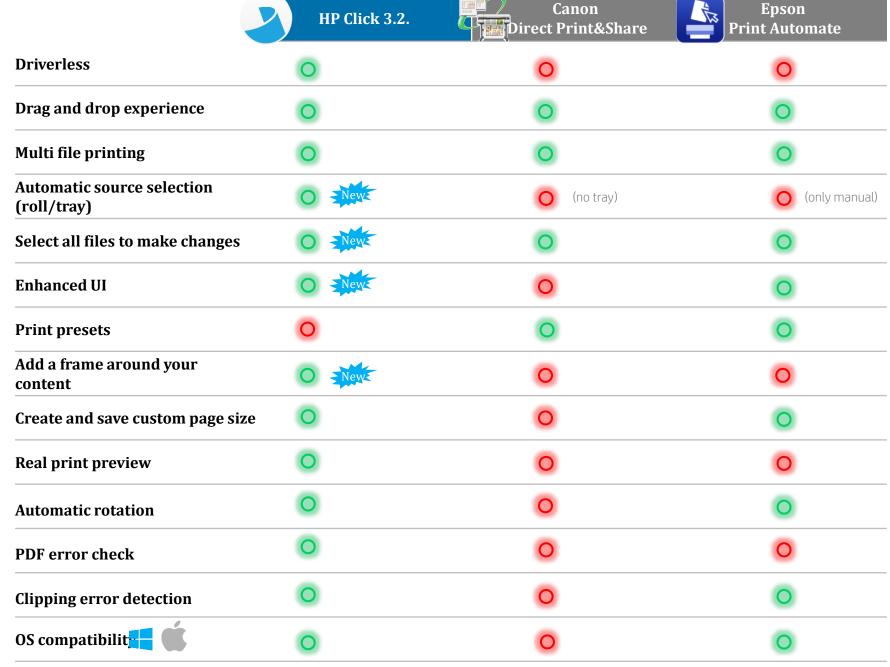


Canon Direct Print & Share

VS.



Epson Print Automate



Extreme simplicity

Print multi-size A3/B and A1/D or A0/E projects automatically, without manually switching the media source



First printers with truly integrated multi-size workflow



HP Click

Job preparation



Printing

Automatic source selection (roll/tray)

HP DesignJet T200/T600/Studio series
Automatic Media source switching



Canon

NO integrated multi-size workflow



Canon Direct Print & Share



NO Automatic source selection



Canon iPF TA-series
NO Automatic Media source switching
NO Tray
Only manual sheet feed

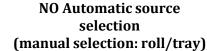


EPSON

NO integrated multi-size workflow



Epson Print Automate









End-to-end Performance

Workflow comparison



Maria **Architect**

Project printing 5 page PDF mixed job





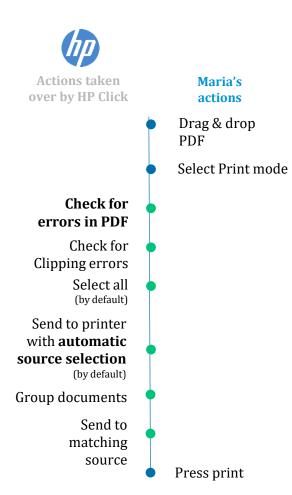






A1 Landscape Portrait Portrait Landscape Landscape







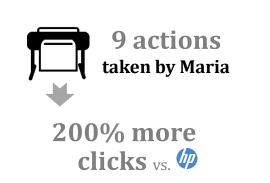
Up to 102% faster vs. Canon Up to 64% faster vs. EPSON

Canon Actions taken Maria's over by Canon actions **Direct Print &** Share Drag & drop PDF Select media source (roll) **NO Clipping** Select media type detection! **NO PDF error** Select roll size check! Select print mode Preview all + deselect A3 Print A1 Select A3 files Select media source (sheet) Print A3 Load sheet one -byone 11 actions



267% more clicks vs.

EPSON Actions taken Maria's over by Epson actions **Print Automate** Drag & drop PDF Check for clipping errors Select A1 preset **NO PDF error** check! Deselect A3 files Print A1 files Exit application Re-open application Drag and drop again



Select A3 preset

Press print

Productive End-to-End performance

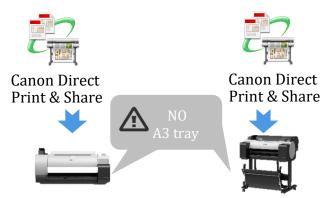
24-in printers











	HP DesignJet T250	HP DesignJet T650 24in	Epson SC-T3100N	Canon iPF-TA 20	Canon iPF TM-200
Job Preparation	20 sec	20 sec	3 min 15 sec	2 min 10 sec	2 min 10 sec
Total Time	3 min 32 sec	3 min 31 sec	5 min 2 sec	7 min 5 sec	6 min 37 sec
Actions taken	3	3	9	11	11

The fastest

43% faster Vs. Epson **101%** faster

88%

=2 x times

faster Vs. Canon TM

Vs. Canon TA

Job description: 5-pages PDF (3xA1 + 2xA3) Paper: Oce Plain paper 75g Print Mode: fast











Job submission:

 $\mathrm{HP} \rightarrow \mathrm{HP}$ Click

Epson → Epson Print Automate
Canon → Canon Direct Print & Share

Productive End-to-End performance

36-in printers









	HP DesignJet T650 36in	Epson SC-T5100	Canon iPF-TA 30	Canon iPF-TM 305
Job Preparation	20 sec	3 min 15 sec	2 min 10 sec	2 min 10 sec
Total Time	3 min 22 sec	5 min 32 sec	6 min 49 sec	6 min 25 sec
Actions taken	3	9	11	11



64% faster Vs. Epson

102% faster

=2 x times

91%

faster
Vs. Canon TM-series

Vs. Canon TA-series

Job description: 5-pages PDF (3xA1 + 2xA3) Paper: Oce Plain paper 75g Print Mode: fast











Job submission:

 $\mathrm{HP} o \mathrm{HP}$ Click

Epson → Epson Print Automate

Canon → Canon Direct Print & Share

Compactness



Compactness



Canon **EPSON***

World's smallest plotters

62%

20% 18% 32%

8%

9%

more space⁽¹⁾more space⁽³⁾more space⁽¹⁾more space⁽²⁾more space⁽³⁾







	DesignJet	DesignJet	DesignJet
	T250	T650 24"	T650 36"
Footprint (wxd)	0.45 m ²	0.61 m ²	0.80 m ²
	4.80 ft ²	6.60 ft ²	8.58 ft ²
	No tray, No stand	Open tray, closed basket	Open tray, closed basket

iPF TA-20	iPF TA-30
0.72 m ² 7.75 ft ²	0.96 m ² 10.29 ft ²
No tray, No stand or closed basket	No tray, closed basket

SureColor T3100N/T21 00	SureColor T3100X CISS	SureColor T3100	SureColor T5100
0.53 m ² 5.69 ft ²	0.59 m ² 6.32 ft ²	0.66 m ² 7.15 ft ²	0.87 m ² 9.33 ft ²
Open tray, no stand, open cover	Open tray, no stand	Open tray, closed basket	Open tray, closed basket

vs. HP DesignJet T250

vs. HP DesignJet T650 "24"

Vs. HP DesignJet T650 36"



Compactness

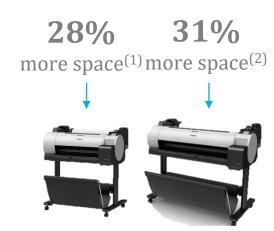


World's smallest plotters



	DesignJet Studio 24"	DesignJet Studio 36"
Footprint (wxd)	0.56 m ² 6.05 ft ²	0.73 m ² 7.87 ft ²
	Open tray, closed basket	Open tray, closed basket

Canon



iPF TA-20	iPF TA-30
0.72 m ²	0.96 m ²
7.75 ft ²	10.29 ft ²
No tray,	No tray,
closed	closed
basket	basket

EPSON*

18%	19%
more space ⁽¹⁾	more space ⁽²⁾
↓	↓
1000	EPOCH AND

SureColor	SureColor
T3100	T5100
0.66 m ²	0.87 m ²
7.15 ft ²	9.33 ft ²
Open tray, closed basket	Open tray, closed basket

⁽¹⁾ vs. DesignJet Studio 24"

⁽²⁾ vs. DesignJet Studio 36"

Ink efficiency



HP has the most efficient servicing routines

Up to 95% less ink for routine maintenance and up to 100 extra

A1/D pages per month



Runs a printhead cleaning on every cartridge replacement



Maintenance cartridge needed







Maintenanc e cartridge needed







World's most efficient servicing routines

Up to

95%

less ink for maintenance Vs. Canon Up to

86%

less ink for maintenance Vs. Epson non-CISS Up to

88%

less ink for maintenance Vs. Epson CISS



4 (1)

A1/D month

Canon

90 (1)

A1/D month

EPSON non-CISS

21 (1)

A1/D month

EPSON CISS

21⁽¹⁾

A1/D month

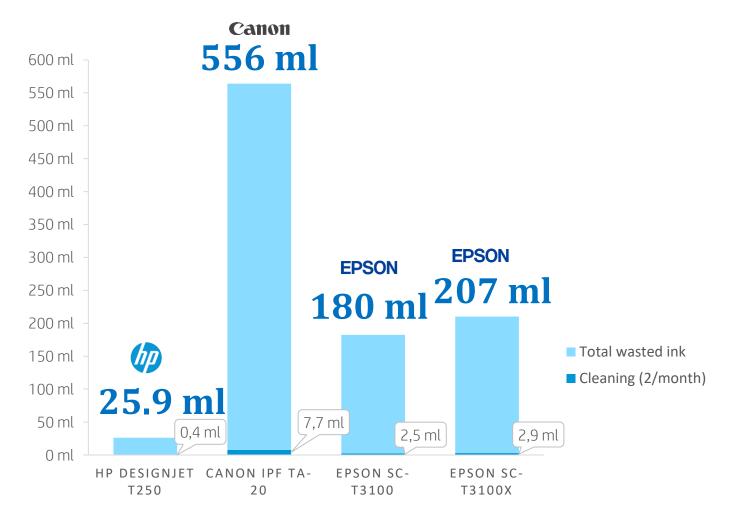
⁽¹⁾ Based on wasted ink equivalent to Print a 5,1% coverage file in plain paper/fast mode





• Wasted ink

HP wastes up to 95% less ink for maintenance vs. Canon, 86% less vs. Epson non-CISS and 88% less vs. Epson CISS



(*) Based on 36 months analisis period assuming 2 cleanings per month









101 A1/D

pages/month



HP DesignJet T650



Average usage/ month

Canon

Canon iPF TA-30



26 A1/D

pages/month

74% less than

EPSON

Epson SC-T5100



75% Printing **→ 25**% Waste

63 A1/D

pages/month

38%

less than (///



71% Printing →

52 A1/D

pages/month

less than

⁽¹⁾ Calculation done taking into account two normal printhead cleanings and coverage of 5,1% in the file. The page yield is calculated as the amount of pages that can be printed out of monthly average usage in ml, removing the ink wasted for maintenance



Sustainability

Sustainability Competitive Dashboard

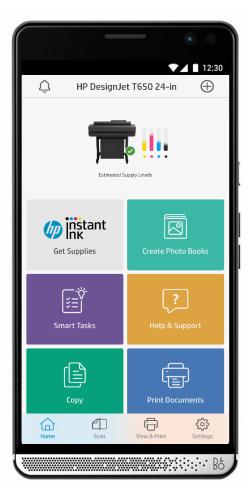
		HP DJ T250/650/Studio	Canon imagePROGRAF TA- 20	Canon imagePROGRAF TA- 30	Epson SureColor T3100	Epson SureColor T5100
	Energy Star ENERGY STAR	ES 3.0 compliant Power Consumption: <5,5W (sleep); <0,2W (off)	ES 3.0 Compliant 3,6W (Sleep); <0,3W (Off)	ES 3.0 Compliant 3,6W (Sleep); <0,3W (Off)	ES 3.0 Compliant 2W (Sleep); 0,2W (Off)	ES 3.0 Compliant 2,1W (Sleep); 0,2W (Off)
Ecolabels	EPEAT level	GOLD level (Only for Spark Doer & Humanist, GRETA SKU May not be EPEAT)	SILVER level	SILVER level	NOT Certified	Not Certified
	Taiwan Green Mark	Working to obtain certification	Unknown	Unknown	Unknown	Unknown
PCR	% plastic weight	All ID parts are made with PCR ~30% in Doer and Humanist ~10% in Greta	Min 5g and Max <10%	Minimum 5g and Max <10%	Unknown	Unknown
Take- back program		HP Ink Cartridge Recycling Packaging takeback (US) Media take back				
Other Eco Marks		Post Consumer Recycled FSC, PEFC, 100% Recyclable HP Media	© 2020 Soget	i. All rights reserved.		

Mobility

Meet the competition Mobile apps











EPSON

NO mobile printing app



The freedom of remote printing

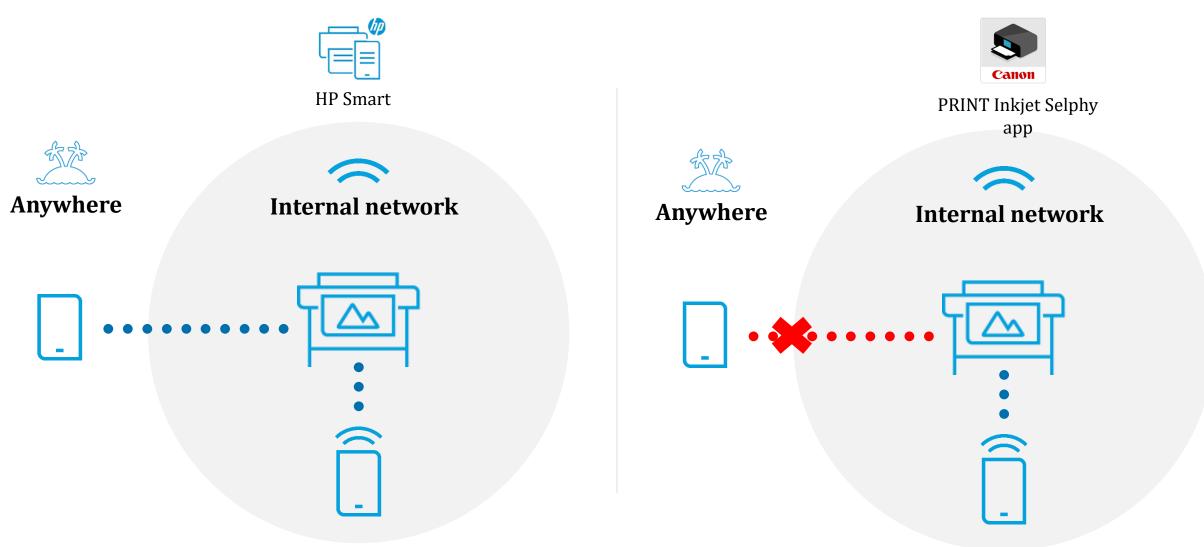


Image Quality

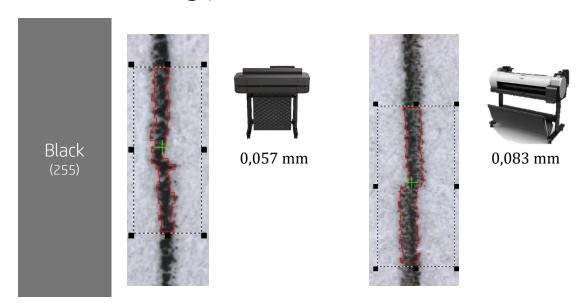
Image quality metrics Vertical line straightness



31% more line accuracy vs. Canon

HP DesignJet T650

Canon iPF TM-305



Test description: VLS – Vertical 1px – K 255 Target: LineQuality.tif Tool: PIAS II Paper: Oce Plain paper 75g Print Mode: fast Job submission: HP → HP Click Canon → Canon Direct Print & Share Epson → Photoshop + Driver

Image quality metrics Gamut and Black optical density (KOD) **65%** 18% 21% more gamut more gamut more gamut vs. Canon vs. Epson non-CISS vs. Epson CISS **HP DesignJet T650 Canon iPF TM-305 Epson SC-T5100 Epson SC-T3100X** Gamut 187K 113K 158K 154 K Vol

Test Description: Target: TC9.18

Tool: i0 i1

Construction method: Alpha shape 1000

KOD

Paper: Oce Plain paper 75g Print Mode: fast

22

Job submission:
HP → HP Click
Canon → Canon Direct Print & Share
Epson → Photoshop + Driver

22

30

31

Footnotes & data points

HP DesignJet T250 vs Canon TA-20

End-2-End workflow - 101% faster end-to-end printing: based on 3rd party testing commissioned by HP performed in May 2020, which consists in printing 3 A1 PDF files and 2 A3 PDF files in plain paper fast mode and measuring the number of actions required and the total time including jobs preparation with SW HP Click vs Canon Direct Print & Share. Number of actions: HP T250: 3, Canon TA-20: 11. Total time: HP T250 3 min 32 sec, Canon TA-20 7 min 5 sec. Original files available upon request.

Compactness - up 38% less space: operational footprint calculated without stand & closed tray. HP T250 operational footprint 0,45 sqm vs Canon TA-20 0,72 sqm

Ink Efficiency - Up to 95% less wasted ink: based on 3rd party testing commissioned by HP performed in May 2020. Waste measured weighting the maintenance cartridge/service station before and after performing a PH cleaning and assuming 2 PH cleaning performed per month. HP T250 waste is 0.36ml per each PH cleaning vs. Canon TA-20 waste is 7.725ml per each PH cleaning. Page Yield: based on 3rd party testing commissioned by HP performed in May 2020. The page yield is calculated as the amount of pages that can be printed out of monthly average usage in ml, removing the ink wasted for maintenance. Calculation done taking into account two normal printhead cleanings and coverage of 5,1% in the file. Original file available upon request.

Better mobile printing: Based on Google Play / App store ratings in June 2020. Canon mobile application Inkjet selphy app has limited capabilities compared to HP Smart, for instance Canon app does not support remote printing from a mobile, meaning that in order to print from a mobile the user must be connected to the same internal network as the printer. On the contrary, HP Smart allows the user to send a job from anywhere through a mobile device.

Line accuracy: based on 3rd party testing commissioned by HP performed in May 2020. VLS (vertical lines straightness) on vertical 1 px black lines: HP T250 0.057mm vs Canon TA-20 0.083mm (lower VLS implies better lines) printed on Oce 75g plain paper using equivalent fast/draft print modes.

Gamut: based on 3rd party testing commissioned by HP performed in May 2020. HP T250 187K vs Canon TA-20 113K printed on Oce 75g plain paper using equivalent fast/draft print modes.

Sustainability

HP T250 has EPEAT GOLD certification for reduced environmental impact (all required criteria met plus at least 75% of the optional criteria), while Canon TA-20 has EPEAT SILVER certification (all required criteria met plus at least 50% of the optional criteria). 30% of the plastic parts of HP T250 are obtained with recycled pastlic, with a reduced CO2 footprint of 7.3 tons per year vs less than 10% in Canon TA-20.

Based on specifications

HP Click vs Canon Direct Print & Share: According to product specifications as per June 2020, Canon Direct Print & Share is not a driverless solution (it requires driver), it has a basic and simpler UI compared to HP Click, and does not have the following features present in HP Click: add a frame around your content, custom pages creation and saving, real print preview, automatic rotation, PDF error check, clipping detection, compatibility with Apple MacOS.

Maintenance cartridge: According to product specifications, HP T250 does not have a maintenance cartridge for service routines, while Canon TA-20 requires one.

HP DesignJet T250 vs Epson SC-T3100

End-2-End workflow - 43% faster end-to-end printing: based on 3rd party testing commissioned by HP performed in May 2020, consisting in printing 3 A1 PDF files and 2 A3 PDF files in plain paper fast mode and measuring the number of actions required and the total time including jobs preparation with SW HP Click vs Epson Print Automate. Number of actions: HP T250: 3, Epson SC-T3100: 9. Total time: HP T250 3 min 32 sec, Epson SC-T3100 5 min 2 sec. Original files available upon request.

Compactness - up 15% less space: operational footprint calculated without stand & open tray. HP T250 operational footprint 0,45 sqm vs Epson SC-T3100 0,53 sqm.

Ink Efficiency - Up to 86% less wasted ink: based on 3rd party testing commissioned by HP performed in May 2020. Waste measured weighting the maintenance cartridge/service station before and after performing a PH cleaning and assuming 2 PH cleaning performed per month. HP T250 waste is 0.36ml per each PH cleaning vs. Epson SC-T3100 waste is 2.5ml per each PH cleaning. Page Yield: based on 3rd party testing commissioned by HP performed in May 2020. The page yield is calculated as the amount of pages that can be printed out of monthly average usage in ml, removing the ink wasted for maintenance. Calculation done taking into account two normal printhead cleanings and coverage of 5,1% in the file. Original file available upon request.

Better mobile printing: Based on Google Play / App store top ratings for HP Smart in June 2020. No mobile app available for Epson large format printers. HP Smart allows the user to send a job from anywhere through a mobile device, thanks to remote printing functionality not available in Epson T3100.

Gamut: based on 3rd party testing commissioned by HP performed in May 2020. HP T250 187K vs Epson SC-T3100 158K printed on Oce 75g plain paper using equivalent fast/speed print modes.

Sustainability - HP T250 has EPEAT GOLD certification for reduced environmental impact (all required criteria met plus at least 75% of the optional criteria), while Epson T3100 has no EPEAT certification. 30% of the plastic parts of HP T250 are obtained with recycled plastic, with a reduced CO2 footprint of 7.3 tons per year.

Based on specifications

HP Click vs Epson Print Automate: According to product specifications as per June 2020, Epson Print Automate is not a driverless solution (it requires driver) and it does not have the following features present in HP Click: real print preview, automatic source selection, PDF error check

Maintenance cartridge: According to product specifications, HP T250 does not have a maintenance cartridge for service routines, while Epson T3100 requires one. Besides, Epson runs a printhead cleaning on every cartridge replacement

HP DesignJet T650 vs Canon iPF TA-30

End-2-End workflow - 102% faster end-to-end printing: based on 3rd party testing commissioned by HP performed in May 2020, which consists in printing 3 A1 PDF files and 2 A3 PDF files in plain paper fast mode and measuring the number of actions required and the total time including jobs preparation with SW HP Click vs Canon Direct Print & Share. Number of actions: HP T650: 3, Canon TA-20: 11. Total time: HP T650 3 min 22 sec, Canon TA-30 6 min 49 sec. Original files available upon request.

Compactness - up 20% less space: operational footprint calculated with closed basket & open tray. HP T630 36in operational footprint 0,80 sqm vs Canon TA-30 0,96 sqm

Ink Efficiency - Up to 95% less wasted ink: based on 3rd party testing commissioned by HP performed in May 2020. Waste measured weighting the maintenance cartridge/service station before and after performing a PH cleaning and assuming 2 PH cleaning performed per month. HP T650 36in waste is 0.36ml per each PH cleaning vs. Canon TA-30 waste is 7.725ml per each PH cleaning. Page Yield: based on 3rd party testing commissioned by HP performed in May 2020. The page yield is calculated as the amount of pages that can be printed out of monthly average usage in ml, removing the ink wasted for maintenance. Calculation done taking into account two normal printhead cleanings and coverage of 5,1% in the file. Original file available upon request.

Better mobile printing: Based on Google Play / App store ratings in June 2020. Canon mobile application Inkjet selphy app has limited capabilities compared to HP Smart, for instance Canon app does not support remote printing from a mobile, meaning that in order to print from a mobile the user must be connected to the same internal network as the printer. On the contrary, HP Smart allows the user to send a job from anywhere through a mobile device.

Line accuracy: based on 3rd party testing commissioned by HP performed in May 2020. VLS (vertical lines straigthness) on vertical 1 px black lines: HP T650 0.057mm vs Canon TA-30 0.083mm (lower VLS implies better lines) printed on Oce 75g plain paper using equivalent fast/draft print modes.

Gamut: based on 3rd party testing commissioned by HP performed in May 2020. HP T650 187K vs Canon TA-30 113K printed on Oce 75g plain paper using equivalent fast/draft print modes.

Based on specifications

HP Click vs Canon Direct Print & Share: According to product specifications as per June 2020, Canon Direct Print & Share is not a driverless solution (it requires driver), it has a basic and simpler UI compared to HP Click, and does not have the following features present in HP Click: add a frame around your content, custom pages creation and saving, real print preview, automatic rotation, PDF error check, clipping detection, compatibility with Apple MacOS.

Maintenance cartridge: According to product specifications, HP T650 does not have a maintenance cartridge for service routines, while Canon TA-30 requires one.

Sustainability. As per product specification, 30% of the plastic parts are obtained with recycled pastlic, with a reduced CO2 footprint of 7.3 tons per year

HP DesignJet T650 vs Epson SC-T5100

End-2-End workflow - 64% faster end-to-end printing: based on 3rd party testing commissioned by HP performed in May 2020, consisting in printing 3 A1 PDF files and 2 A3 PDF files in plain paper fast mode and measuring the number of actions required and the total time including jobs preparation with SW HP Click vs Epson Print Automate. Number of actions: HP T650 36in: 3, Epson SC-T5100: 9. Total time: HP T650 3 min 22 sec, Epson SC-T5100 5 min 32 sec. Original files available upon request.

Compactness - up 8% less space: operational footprint calculated with closed basket & open tray. HP T650 36in operational footprint 0,80 sqm vs Epson SC-T5100 0,87 sqm.

Efficiency - Up to 86% less wasted ink: based on 3rd party testing commissioned by HP performed in May 2020. Waste measured weighting the maintenance cartridge/service station before and after performing a PH cleaning and assuming 2 PH cleaning performed per month. HP T650 waste is 0.36ml per each PH cleaning vs. Epson SC-T5100 waste is 2.5ml per each PH cleaning. Page Yield: based on 3rd party testing commissioned by HP performed in May 2020. The page yield is calculated as the amount of pages that can be printed out of monthly average usage in ml, removing the ink wasted for maintenance. Calculation done taking into account two normal printhead cleanings and coverage of 5,1% in the file. Original file available upon request.

Better mobile printing: Based on Google Play / App store top ratings for HP Smart in June 2020. No mobile app available for Epson large format printers. HP Smart allows the user to send a job from anywhere through a mobile device, thanks to remote printing functionality not available in Epson T5100.

Gamut: based on 3rd party testing commissioned by HP performed in May 2020. HP T650 187K vs Epson SC-T5100 158K printed on Oce 75g plain paper using equivalent fast/speed print modes. Sustainability

HP T250 has EPEAT GOLD certification for reduced environmental impact (all required criteria met plus at least 75% of the optional criteria), while Epson T5100 has no EPEAT certification. 30% of the plastic parts of HP T250 are obtained with recycled plastic, with a reduced CO2 footprint of 7.3 tons per year.

Based on specifications

HP Click vs Epson Print Automate: According to product specifications as per June 2020, Epson Print Automate is not a driverless solution (it requires driver) and it does not have the following features present in HP Click: real print preview, automatic source selection, PDF error check

Maintenance cartridge: According to product specifications, HP T650 does not have a maintenance cartridge for service routines, while Epson T5100 requires one. Besides, Epson runs a printhead cleaning on every cartridge replacement.



This document was created by Sogeti as third party comparative assessment of Large Format printers commissioned by HP

While specifications are subject to change, reasonable effort was made to ensure the accuracy of this document on the date it was prepared

Detailed test reports and source files are available upon request







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