



durst Alpha 330



# DURST ALPHA SERIES 5

THE NEW BENCHMARK FOR  
INDUSTRIAL TEXTILE PRINTING







# DURST ALPHA SERIES 5: THE INDUSTRIAL BENCHMARK

For quality demanding Industrial Textile Printers the Alpha product line provides the highest productivity, process stability and profitability because of Durst's pixel-to-output approach bringing together excellent machinery, sustainable ink technologies, application know-how and optimized software



High quality bed and table linen



Pillows, cushions and other home textile applications



Design printing, order printers, small lot size suppliers  
(e.g. e-commerce businesses or web-to-print)



High quality curtains



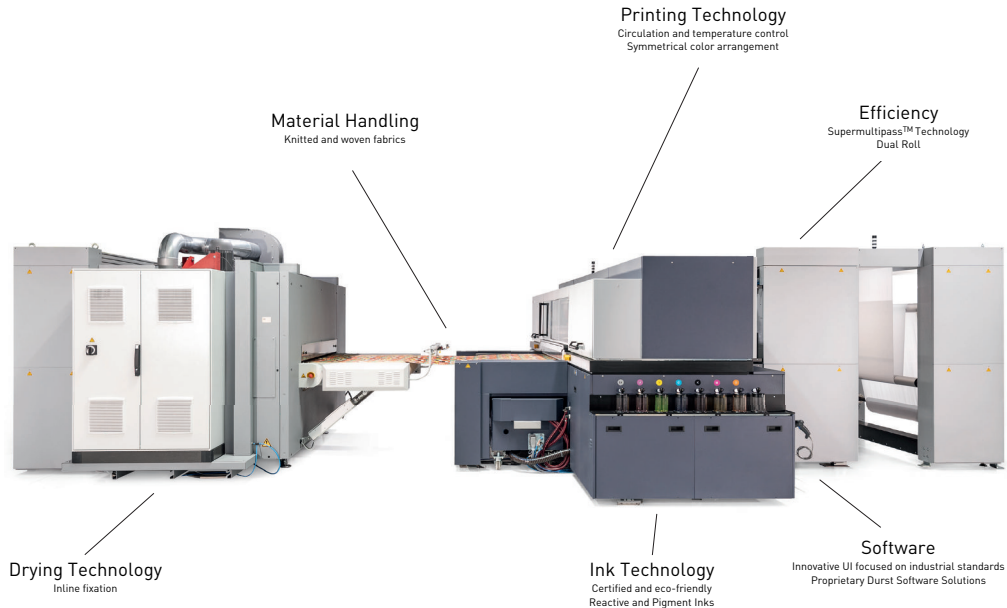
High quality, fast and designer fashion



Specialty products (sunshades, etc.)



# DURST ALPHA SERIES 5: THE INDUSTRIAL BENCHMARK





# DURST ALPHA SERIES 5: THE INDUSTRIAL BENCHMARK

## STANDARD SCOPE OF DELIVERY

Material width	190 cm
Print width	190 cm
Head configuration	32/64 Heads
Color channels	8
Drop size	Variable Drop 7/14/21 pt
Print resolution	300 x 600 dpi, 500 x 600 dpi
Print Speed Single-Roll Mode	Up to 620 m/h, 990 m/h (1-Pass 300 x 600 dpi)
Print Speed Dual-Roll Mode	Not available
Printhead thermal control	Included
Durst Advanced Stroke Control	Included
Symmetric color alignment	Included
Single roll material usage	Included
Woven material option	Included
Single drying unit (gas, electric, oil, steam)	Included

## ALPHA 190

Material width	190 cm
Print width	190 cm
Head configuration	32/64 Heads
Color channels	8
Drop size	Variable Drop 7/14/21 pt
Print resolution	300 x 600 dpi, 500 x 600 dpi
Print Speed Single-Roll Mode	Up to 620 m/h, 990 m/h (1-Pass 300 x 600 dpi)
Print Speed Dual-Roll Mode	Not available
Printhead thermal control	Included
Durst Advanced Stroke Control	Included
Symmetric color alignment	Included
Single roll material usage	Included
Woven material option	Included
Single drying unit (gas, electric, oil, steam)	Included

## ALPHA 330

Material width	330 cm
Print width	330 cm
Head configuration	32/64 Heads
Color channels	8
Drop size	Variable Drop 7/14/21 pt
Print resolution	300 x 600 dpi, 500 x 600 dpi
Print Speed Single-Roll Mode	Up to 460 m/h, 1,470 m/h (1-Pass 300 x 600 dpi)
Print Speed Dual-Roll Mode	Up to 940 m/h, 1,184 m/h (1-Pass 300 x 600 dpi)
Printhead thermal control	Included
Durst Advanced Stroke Control	Included
Symmetric color alignment	Included
Single roll material usage	Included
Woven material option	Included
Single drying unit (gas, electric, oil, steam)	Included

## ADDITIONAL OPTIONS

Knit-wear option	Optional
Dual roll option	Not available
Small roll entry (50 cm diameter)	Optional
Jumbo-roll entry up to 2 m	Optional
Folded material entry	Optional
Small roll exit	Optional
Jumbo-roll exit up to 2 m	Optional
Folded material exit	Optional
Second drying unit	Optional

Knit-wear option	Optional
Dual roll option	Not available
Small roll entry (50 cm diameter)	Optional
Jumbo-roll entry up to 2 m	Optional
Folded material entry	Optional
Small roll exit	Optional
Jumbo-roll exit up to 2 m	Optional
Folded material exit	Optional
Second drying unit	Optional

Knit-wear option	Optional
Dual roll option	Optional
Small roll entry (50 cm diameter)	Optional
Jumbo-roll entry up to 2 m	Optional
Folded material entry	Optional
Small roll exit	Optional
Jumbo-roll exit up to 2 m	Optional
Folded material exit	Optional
Second drying unit	Optional

## SPACE REQUIREMENTS for standard scope of delivery

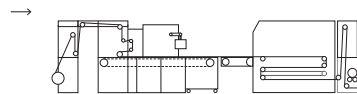
Total length	994 cm
Maximum required width	790 cm
Infeed width	290 cm
Exit width	290 cm
Maximum height	270 cm

Total length	994 cm
Maximum required width	1,070 cm
Infeed width	431 cm
Exit width	431 cm
Maximum height	270 cm

Total length	994 cm
Maximum required width	1,070 cm
Infeed width	431 cm
Exit width	431 cm
Maximum height	270 cm

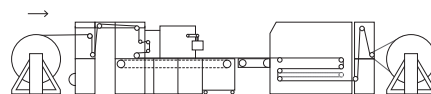
## VERSION 1

Durst entry unit for small rolls and exit unit on uproller winder for small rolls.



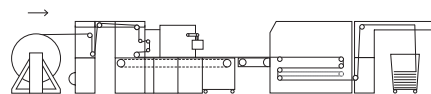
## VERSION 2

Durst entry unit for small and big rolls, exit for big rolls.



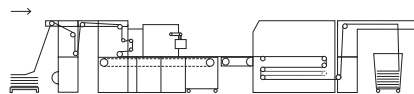
## VERSION 3

Durst entry unit for big rolls and small rolls, exit for folded fabrics.



## VERSION 4

Durst entry and exit unit for folded fabrics.

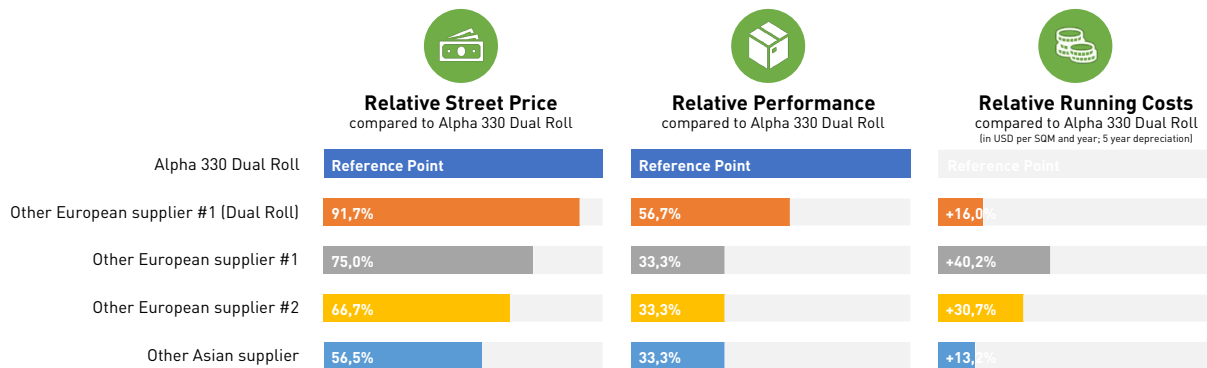






# DURST ALPHA SERIES 5: DRIVING YOUR BUSINESS

- > Best-in class image quality, best-in class output and best-in class relative running costs render the Alpha Series as the new industrial standard for digital textile printing and drives your business
- > The Alpha series outperforms the competition in any aspect. Durst is delivering its promises, while others polish their theoretical specs

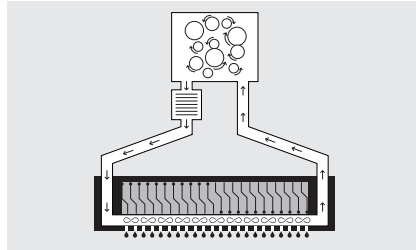




# SUPERMULTIPASS™ TECHNOLOGY: LEADING QUALITY LEVELS

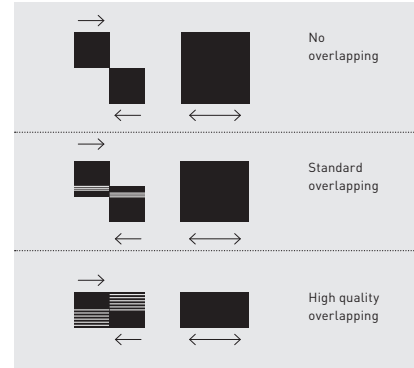
## CONSTANT TEMPERATURE AND INK CIRCULATION

The constant temperature control of the inks results in a constant viscosity, exact drop sizes, and controlled image build-up. The ink circulation in all ink circuits ensures that the printheads are always ready.



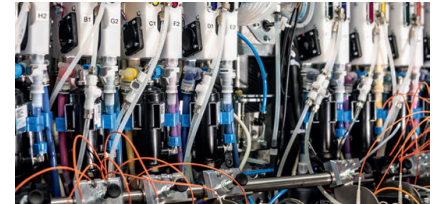
## DURST ADVANCED STROKE CONTROL

DASC is a stepless (overlapping) pass control system, which calculates the drop placement according to the material and design while taking into account the drying times. This allows streak-free images to be printed at up to 80% higher production speeds.



## SYMMETRICAL COLOR ARRANGEMENT

The symmetrical arrangement of the 8 printing inks means that the same sequences of colors are printed in both printing directions. This prevents color banding and increases the printing speed compared to an asymmetrical printhead arrangement.



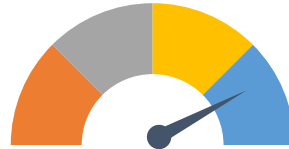


# SUPERMULTIPASS™ TECHNOLOGY: LEADING OUTPUT LEVELS

...30% more output than comparable systems at highest quality levels

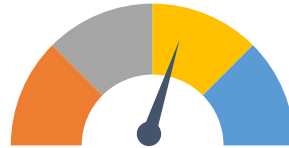
## Alpha 190 64 PHs

1116 m<sup>2</sup>/h, 620 lm/h  
1-Pass, no DASC, 300x600 dpi  
Media width: 180 cm



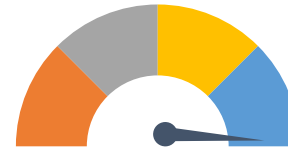
## Alpha 190 32 PHs

558 m<sup>2</sup>/h, 310 lm/h  
1-Pass, no DASC, 300x600 dpi  
Media width: 180 cm



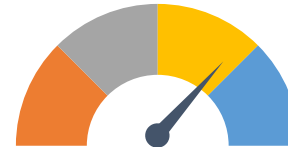
## Alpha 330 64 PHs

1472 m<sup>2</sup>/h, 460 lm/h  
1-Pass, no DASC, 300x600 dpi  
Media width: 320 cm



## Alpha 330 32 PHs

736 m<sup>2</sup>/h, 230 lm/h  
1-Pass, no DASC, 300x600 dpi  
Media width: 320 cm



# MAKE IT FAIR: A HEAD-TO-HEAD COMPARISON

Direct comparison at a customer site: same design, same material, same day...



DURST ALPHA 330 (64 PHs)

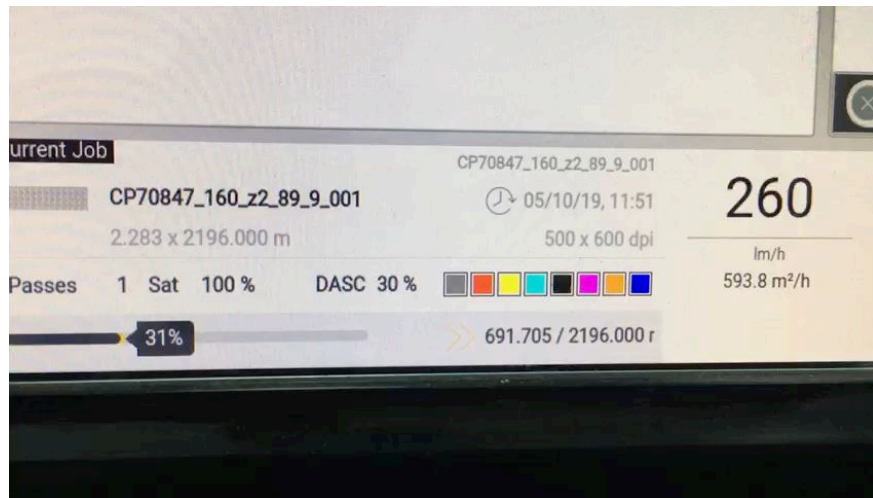


OTHER SUPPLIER (32 PHs)



# MAKE IT FAIR: A HEAD-TO-HEAD COMPARISON

Direct comparison at a customer site: same design, same material, same day...



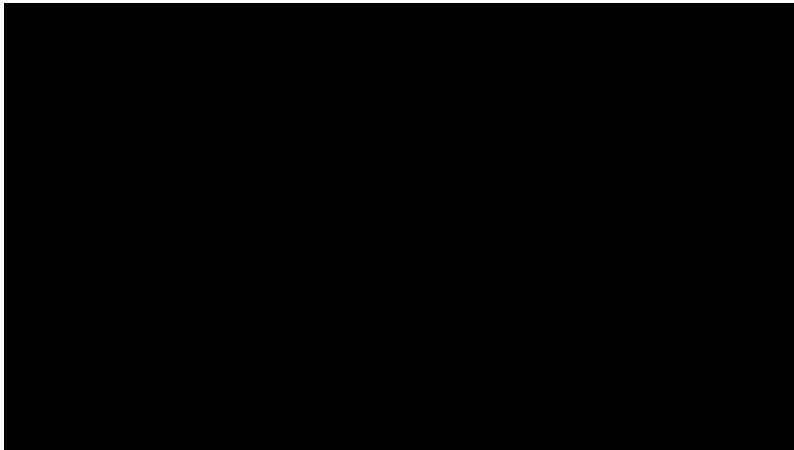
DURST ALPHA 330 64PH  
260 lm/hour=594 m<sup>2</sup>/hour – 1 Pass 30% DASC  
3,4gr. ink/m<sup>2</sup> spitting included



OTHER SUPPLIER  
104 lm/hour – 4 Pass Bidirectional  
2.7 + 0.7 tickling =3.4gr. ink/m<sup>2</sup>

# DUAL ROLL OPTION AS PRODUCTIVITY BOOSTER

- > +33% more output compared to narrow width print systems
- > High-end E&L fabric guiding system, with double tension unit
- > State of the art printing software automatically places two different jobs
- > Dual Roll Options (Jumbo-Roll and Big-Roll):
  - ▶ Dual Big Roll (using two external customer A-frames)
  - ▶ Dual Small Roll (using integrated unwinders for two rolls up to 500 mm each)



# ALPHA INK TECHNOLOGIES: REACTIVE AND PIGMENT INKS



## DURST ALPHA REACTIVE INKS

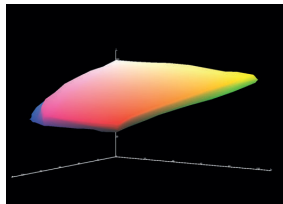
GU15-certified Durst reactive inks were developed for classical applications such as household textiles, curtains, bed and sofa covers, apparel, and fashion. They are suitable for printing cotton and cotton mixtures with a cotton content of at least 60% as well as polyamide and silk.

### Textile Standards

Oekotex 100 compliant (Class II), GOTS 5.0 compliant, Oregon Toxic Free Kids Act compliant

### Common Applications

Home Textiles, Apparel, Fashion



## DURST ALPHA PIGMENT INKS

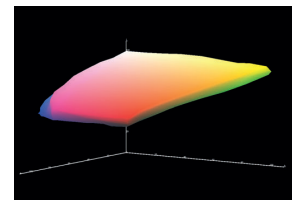
The 'Advanced Digital Pigment' is specially developed by Durst and can be used universally in the textile field. It is characterized by outstanding color reproduction while offering a soft look and feel. There is no need for pre- and post-processing steps in most standard applications, thus guaranteeing maximum cost efficiency in production.

### Textile Standards

Oekotex 100 compliant (Class I-II), GOTS 5.0 compliant, Prop 65

### Common Applications

Home Textiles, Apparel, Fashion



Fastness results Reactive HD Ink	Cyan	Magenta	Yellow	Black	Orange	Red	Blue	Grey
	Light-Fastness (ISO 105-B02)	6	5	5	6	5-6	5	6
Colour fastness to rubbing wet (ISO 105-X12)	3-4	3-4	4	3-4	3-4	3-4	3-4	4
Colour fastness to rubbing dry (ISO 105-X12)	4-5	4-5	5	4-5	4-5	4-5	4-5	5
Colour fastness to washing 60 °C (ISO 105-C06)	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5

Fastness results Pigment Ink	Cyan	Magenta	Yellow	Black	Orange	Red	Green	Blue
	Light-Fastness (ISO 105-B02)	>7	>7	>7	>7	>7	>7	>7
Colour fastness to rubbing wet (ISO 105-X12)	4	4	4-5	4	4	4	4	4
Colour fastness to rubbing dry (ISO 105-X12)	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Colour fastness to washing 60 °C (ISO 105-C06)	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5

Grading of light fastness is in the scale of 8, all other gradings in the scale of 5. All values are dependent on the process and substrate.



# ALPHA TECHNOLOGY: BRAND COMPLIANCE AND SUSTAINABILITY

> The Alpha series and its inks are certified according to all relevant standards



- > A sustainable production technology in any aspect
- ▶ Minimized resource consumption: water, energy and ink
  - ▶ Meeting the highest governmental expectations for sustainable investments
  - ▶ Future-proof technology



## CARBON FOOTPRINT

**Kg 0.4757 of CO<sub>2</sub> Eq/material processed**

*The Carbon Footprint value refers only to the real use of the machine / plant (production and end-of-life phases of the machine / plant are not considered)*



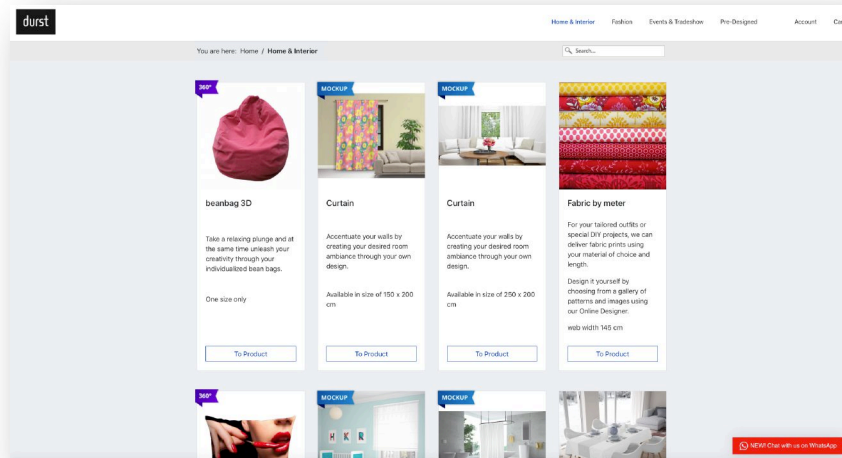
**Kg N.A. of CO<sub>2</sub> /material processed**

*Carbon footprint of previous version of the indicate machine. Year 2015*



# PIXEL-TO-OUTPUT: FULL E-COMMERCE INTEGRATION

In line with the pixel-to-output strategy of Durst, the Alpha series can be fully integrated into e-commerce solutions such as the Durst SmartShop:



Durst SmartShop e-commerce solution incl. product editor and preview options

<https://textil.durst-web2production.com>

# SHAPING THE FUTURE...



[https://www.youtube.com/watch?v=lzQjWvk4ZrE&feature=emb\\_logo](https://www.youtube.com/watch?v=lzQjWvk4ZrE&feature=emb_logo)

*"It may be in as little as three years' time that our unit here runs completely on digital. This is a redefinition of the production processes. A lot of international brands and buyers are now asking for digital printing because they see this as a green process."*

Ekansh Jain, Director of Bliss Impex



[https://www.youtube.com/watch?v=sOp-9FoY3q8&feature=emb\\_logo](https://www.youtube.com/watch?v=sOp-9FoY3q8&feature=emb_logo)

*"If you want to grow, it has to be digital. This is the future – no question! Currently our business is roughly 70% traditional production and 30% digital, but will be evenly split within two years, and I am confident it will be completely digital within five years."*

Prithviraj Kankariya, founder of Anupam Creation



[https://www.youtube.com/watch?v=KylJKg6oF\\_I&feature=emb\\_logo](https://www.youtube.com/watch?v=KylJKg6oF_I&feature=emb_logo)

*"...we are heavily in an e-commerce business. The quality, speed and operational time by partnering with somebody like Durst is really important for us. ...Sustainability is something that we have built our business on. If you are in the Textile world, I highly recommend looking at Durst."*

Michael Jones, CEO of Spoonflower



TEXTILE  
EVOKES  
PASSION

*...AND WE ARE PASSIONATE ABOUT TEXTILE*

# FURTHER INFORMATION: ALPHA SPEED CHARTS

Alpha 190 Series 5, 32 Heads						
PASSES	DASC	MEDIA WIDTH	300x600dpi		500x600dpi	
1-Pass	NO DASC	180 cm	310 lm/h	558 m <sup>2</sup> /h	205 lm/h	369 m <sup>2</sup> /h
1-Pass	10% DASC	180 cm	286 lm/h	514 m <sup>2</sup> /h	195 lm/h	351 m <sup>2</sup> /h
1-Pass	20% DASC	180 cm	262 lm/h	471 m <sup>2</sup> /h	178 lm/h	320 m <sup>2</sup> /h
2-Pass	NO DASC	180 cm	155 lm/h	297 m <sup>2</sup> /h	102 lm/h	183 m <sup>2</sup> /h
2-Pass	10% DASC	180 cm	150 lm/h	270 m <sup>2</sup> /h	99 lm/h	178 m <sup>2</sup> /h
2-Pass	20% DASC	180 cm	143 lm/h	257 m <sup>2</sup> /h	97 lm/h	174 m <sup>2</sup> /h

Alpha 330 Series 5, 32 Heads						
PASSES	DASC	MEDIA WIDTH	300x600dpi		500x600dpi	
1-Pass	NO DASC	320 cm	230 lm/h	736 m <sup>2</sup> /h	160 lm/h	512 m <sup>2</sup> /h
1-Pass	10% DASC	320 cm	209 lm/h	669 m <sup>2</sup> /h	133 lm/h	427 m <sup>2</sup> /h
1-Pass	20% DASC	320 cm	190 lm/h	608 m <sup>2</sup> /h	121 lm/h	388 m <sup>2</sup> /h
2-Pass	NO DASC	320 cm	115 lm/h	368 m <sup>2</sup> /h	80 lm/h	256 m <sup>2</sup> /h
2-Pass	10% DASC	320 cm	110 lm/h	350 m <sup>2</sup> /h	73 lm/h	233 m <sup>2</sup> /h
2-Pass	20% DASC	320 cm	104 lm/h	334 m <sup>2</sup> /h	66 lm/h	212 m <sup>2</sup> /h

Alpha 190 Series 5, 64 Heads						
PASSES	DASC	MEDIA WIDTH	300x600dpi		500x600dpi	
1-Pass	NO DASC	180 cm	620 lm/h	1116 m <sup>2</sup> /h	410 lm/h	738 m <sup>2</sup> /h
1-Pass	10% DASC	180 cm	574 lm/h	1033 m <sup>2</sup> /h	390 lm/h	702 m <sup>2</sup> /h
1-Pass	20% DASC	180 cm	522 lm/h	939 m <sup>2</sup> /h	355 lm/h	639 m <sup>2</sup> /h
2-Pass	NO DASC	180 cm	310 lm/h	589 m <sup>2</sup> /h	205 lm/h	390 m <sup>2</sup> /h
2-Pass	10% DASC	180 cm	301 lm/h	572 m <sup>2</sup> /h	203 lm/h	386 m <sup>2</sup> /h
2-Pass	20% DASC	180 cm	287 lm/h	545 m <sup>2</sup> /h	193 lm/h	367 m <sup>2</sup> /h

Alpha 330 Series 5, 64 Heads						
PASSES	DASC	MEDIA WIDTH	300x600dpi		500x600dpi	
1-Pass	NO DASC	320 cm	460 lm/h	1472 m <sup>2</sup> /h	320 lm/h	1024 m <sup>2</sup> /h
1-Pass	10% DASC	320 cm	420 lm/h	1344 m <sup>2</sup> /h	267 lm/h	854 m <sup>2</sup> /h
1-Pass	20% DASC	320 cm	389 lm/h	1245 m <sup>2</sup> /h	246 lm/h	787 m <sup>2</sup> /h
2-Pass	NO DASC	320 cm	230 lm/h	736 m <sup>2</sup> /h	160 lm/h	512 m <sup>2</sup> /h
2-Pass	10% DASC	320 cm	222 lm/h	710 m <sup>2</sup> /h	145 lm/h	464 m <sup>2</sup> /h
2-Pass	20% DASC	320 cm	212 lm/h	678 m <sup>2</sup> /h	138 lm/h	442 m <sup>2</sup> /h

While every reasonable effort is made to ensure that the information provided on this document is accurate, no guarantees for the currency or accuracy of information are made.



# FURTHER INFORMATION: VALUE PYRAMID



## ...providing you social value

with our future-proof print technologies designed for minimum water consumption, minimum waste generation and with a sustainability-driven product approach!

## ...providing you business value

with the Alpha series capable of driving your top line. Based on unmet machine productivity among high quality Multipass-printers, 24/7 operations, simplified printing processes and supporting digital process expertise, digitally printed textiles become a profitable business for you!

## ...providing you functional value

with Durst's long-standing expertise in digital production technologies, the commitment to quality, reliability and innovation as well as our high ethical and environmental standards!