



VectorGuard™

Advanced Stencil Technology  
for Modern Manufacturing



# VectorGuard™



Since 2004, DEK's VectorGuard™ single-frame stencil system has been enabling cost-effective, high-yield printing processes. Unique among stencil technologies, VectorGuard employs a single frame into which stencil foils for various assembly runs can be interchanged. Traditional mesh mounted stencils have initial high tension but with use and cleaning, the elasticity of the stencil mesh can weaken, resulting in areas of "sag" that can adversely affect stencil aperture to pad alignment and printing yields. VectorGuard alleviates this issue by delivering consistent tension over the life of the stencil.

## VectorGuard™ stencil mounting system features:

- Unique mechanical tensioning system that secures the foil in the frame
- Evenly distributed tension across the entire stencil
- Greater, more consistent tension over the life of the stencil as compared to mesh mounted stencils
- No epoxy bonds that can degrade or break down over time
- Easy to use and operator safe
- Reduces stencil storage space requirements by as much as 75%
- Global availability and support



VectorGuard is available in both a traditional version and a new High Tension version to address varying manufacturing needs. Traditional VectorGuard is well-suited for standard SMT processes, while VectorGuard High Tension has been designed to deliver superb performance and process control for highly miniaturized devices and ultra-fine-pitch geometries.

## VectorGuard™ High Tension Frame

VectorGuard High Tension expands on the award-winning VectorGuard interchangeable stencil portfolio with a system that provides tension that is 45% greater than previous-generation products.

## In testing, VectorGuard High Tension has been proven to deliver:

- Improved process control for greater end-of-line yield
- Better transfer efficiency for miniaturized components
- Excellent solder paste deposition definition
- Long-term integrity with minimal tension degradation over time
- Compatibility with existing VectorGuard foils for cost-effective process integration
- Space-saving foil storage as compared to traditional, mesh mounted stencils





## VectorGuard™ Frame Sizes

Part Number	Description
800023	<b>VG260 High Tension</b> 23 x 23 x 1.2" (584 x 584 x 30 mm)
800028	<b>VG260 High Tension - Green Frame<sup>4</sup></b> 23 x 23 x 1.2" (584 x 584 x 30 mm)
800029	<b>VG265 Wide High Tension</b> 29 x 29 x 1.2" (736 x 736 x 30 mm)
800039	<b>VG265 High Tension</b> 29 x 23 x 1" (736 x 584 x 30 mm)
430584	<b>VG248<sup>1</sup></b> 23 x 23 x 1" (584 x 584 x 26.4 mm)
430585	<b>VG260</b> 23 x 23 x 1.2" (584 x 584 x 30 mm)
800043	<b>VG260 - Green Frame<sup>4</sup></b> 23 x 23 x 1.2" (584 x 584 x 30 mm)
430586	<b>VG265</b> 23 x 29 x 1.2" (584 x 736 x 30 mm)
430587	<b>VG265 wide<sup>2</sup></b> 23 x 29 x 1.2" (584 x 736 x 30 mm)
186770	<b>VG 650 x 550</b> 650 x 550 mm
431248	<b>VG 17 x 17"<sup>3</sup></b> 23 x 23 x 1.2" (432 x 432 x 30 mm)

### Available Stencil Types

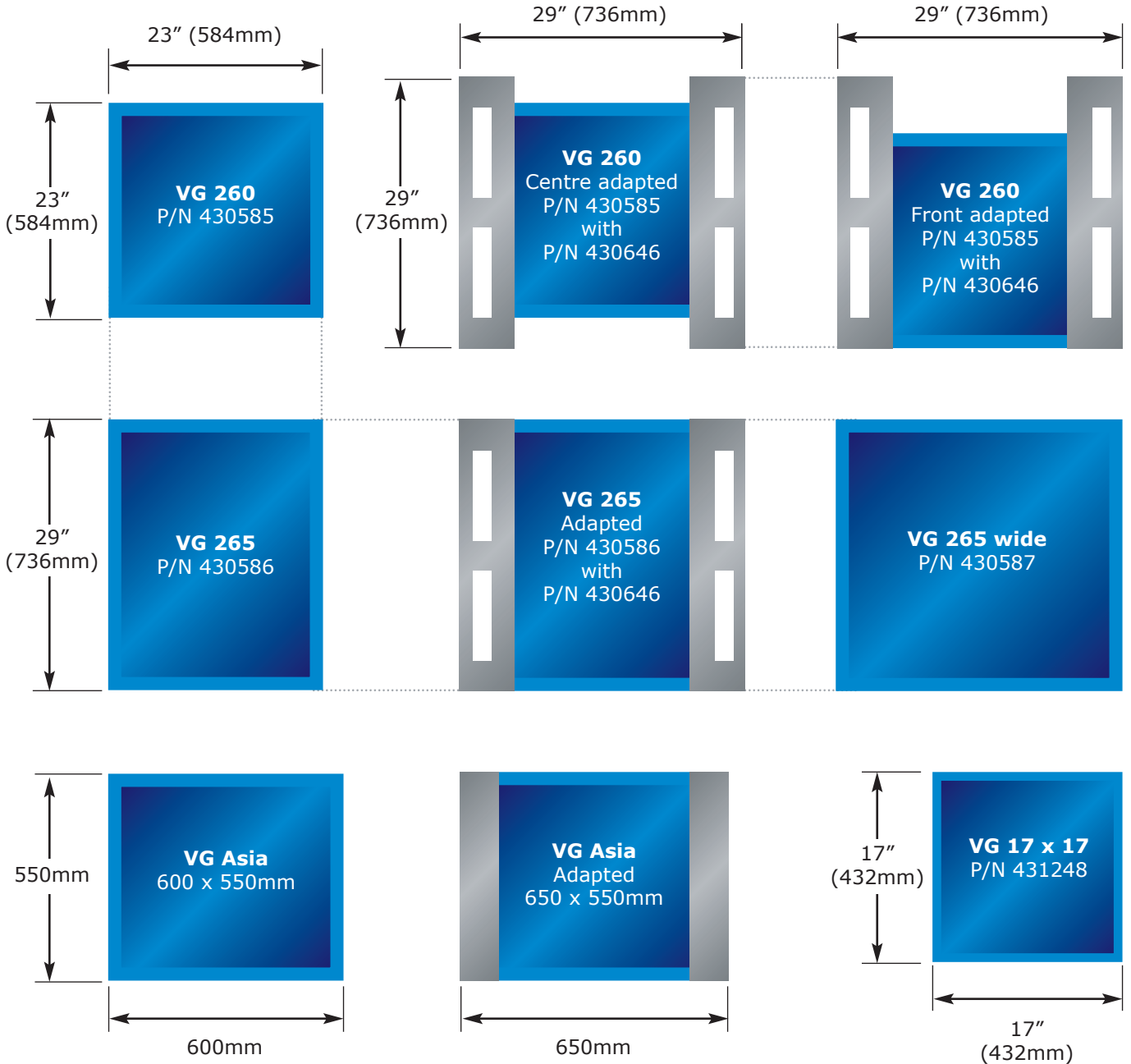
Stainless Steel	Nickel Laser Cut	E-Formed	Pump Print	Tension	Adaptable to 29 x 29"
•	•	•		≈ 47N	•
•	•	•		≈ 47N	•
•	•			≈ 47N	
•	•	•		≈ 47N	•
•	•	•		≈ 32N	
•	•	•	•	≈ 32N	•
•	•	•	•	≈ 32N	•
•	•			≈ 32N	•
•	•			≈ 32N	•
•	•	•	•	≈ 32N	
•	•	•		≈ 32N	

- Notes: 1. Only for DEK 248 Machines  
 2. Limited stencil thickness 5, 6, 7 and 8 mils  
 3. For thin VectorGuard Platinum stencils  
 4. Green anodized frame signifying lead free process

## VectorGuard™ Accessories

Description	Part Number	Remarks
Wash-Frame for VG260 stencils	430905	Bottom profile 40 x 40mm, VG stencil to slide in from the top
Wash-Frame for VG265 stencils	430906	Bottom profile 40 x 40mm, VG stencil to slide in from the top
Wash-Frame for VG265wide stencils	430907	Bottom profile 40 x 40mm, VG stencil to slide in from the top
Repair Kit with Tools	430886	Kit includes all necessary tools and materials to re-tube a frame
Repair Kit without Tools	430887	Kit includes all materials to re-tube a frame
Pneumatic fitting	186680	Tube fitting to connect to the tube (red head)
Sidebar set to adapt 23" Frame to 29"	430646	Adaptor bars to adapt a 23 x 23" or 23 x 29" to a 29 x 29" size
Sidebar set to adapt 17" Frame to 23"	431249	Adaptor bars to adapt a 17 x 17" to a 23 x 23" size
Foot pedal kit	430647	Only need as an additional kit

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