THE ELEMENTS
OF GOOD EMBROIDERY
COLLEEN HARTIGAN
There are no quick fixes for quality embroidery.... The secret is to prevent problems in the first place.
Advantages of using embroidery for embellishment

Decorated Apparel Market
ASI - Distributor Sales 2012

- Embroidery: 61% ($11,834,000,000)
- Screenprinting: 14% ($2,716,000,000)
- Promotional Products, Inkjet Printing & Other: 25% ($4,850,000,000)

$19.4 Billion in 2012

ASI 2012 Industry Sales Report
Total industry sales for 2012 were $19.4 billion, up 5.2% from 2011. 73% of larger distributors (over $1 million in revenue) reported an increase in sales, while two-thirds (66%) of all distributors reported an increase.
Embroidery is suitable for all markets

- Promotion & Badges
- Workwear
- Corporate wear
- Uniforms
- Sports teams
- Local organization and events
- Automotive & Marine
- Fashion
What embroidery brings to the market

- Adds perceived value
- Can be produced on all fabrics
- 3D effect
- Small orders are possible
- Able to produce white
- Longevity of color
- Can add or subtract colors to alter cost
- Has a sheen that makes colors “pop”
- Mix threads for interest and texture
- Meets sustainable and eco-friendly requirements
- Some threads stand up to commercial laundering
- Metallic threads add interest/value and raise profit
Challenges of Embroidery

• Can require longer lead time, depending on where digitizing is being done
• Can require more skill/steps
• Large designs can be expensive
• Large designs can be too heavy/bulky for some fabrics
• T-shirts can be over-powered
• Light weight fabrics will only support low stitch count
Myths about Embroidery

- Myth – Embroidery is less profitable
  - Fact – Most profitable with high end garments

- Myth – Small lettering and detail is not possible
  - Fact – Can produce letters down to 3mm

- Myth – Threads bleed or fade
  - Fact – Not when the correct threads are chosen

- Myth – Metallic’s are not easy to work with
  - Fact – FS Metallic #50 weight is soft and sews smoothly, with no difficulty

- Myth – Too expensive
  - Fact – No minimums, controls budget and cost
Poor Quality Embroidery
Poor Quality Embroidery
What causes Puckering around Embroidery?

- Puckering consists of ripples surrounding the stitched design
- Incorrect hooping
- The hoop is too big for the design
- The quality of the garment is too fine for the embroidery design
- Incorrect needle size was used
- Backing is too thin to stabilize the embroidery
- Too many stitches in the design
- *Once puckering occurs, the garment is beyond repair*
Poor Quality Embroidery

ANTHONY TAVERN
Painter & Decorator

ANTHONY TAVERN
Painter & Decorator
Poor Quality Embroidery
Poor Quality Embroidery
Poor Quality Embroidery
Poor Quality

*Underlay on fabrics with nap*
Poor Quality

Hoop Burn
Poor Tension will cause Problems
Looping: bobbin thread shows on the top side

Correct Tension

Tension Too Tight
Achieve the best results through

- Good Communication
- Good Apparel Choice
- Good Art Work
- Good Digitizing
- Good Components
- Good Partnering
Good Communication

The more you know, the easier it will be to design an embroidery solution

- Know your client.
- What is the purpose of the embroidery project?
- What kind of functionality is required?
- Is there a price point that needs to be met?
- Is there a timeline that needs to be met?
- Is the client open to your suggestions?
- Manage expectations and/or limitations.
Good Apparel Choice

Design an apparel solution with the following in mind:

• Types of apparel for the project— caps, flats, bags etc.
• Type of fabric to be used: pique knit, wicking, fleece, woven...
• Location of the embroidery
• The quantities that are required
• All caps are not created equal! Which kind does your embroiderer favor
• Have good, better and best options
### Apparel

#### Types of Fabric

<table>
<thead>
<tr>
<th>Fabric Type</th>
<th>Image</th>
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<tbody>
<tr>
<td>Denim</td>
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<tr>
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<td>Woven fabric</td>
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<td>Performance fabric</td>
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<td>Fleece</td>
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<td>Terry cloth</td>
<td><img src="image6.jpg" alt="Terry cloth" /></td>
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<td>Knit wear</td>
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<tr>
<td>Corduroy</td>
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</table>

Remember, the digitized design must be altered to suit the fabric.
Good Apparel

Chart of International Care Symbols

Your client needs to know how to care for their embroidered garment.

*International symbols will inform them about:*

- Washing
- Bleaching
- Drying
- Ironing
- Dry Cleaning
Good Art Work

*From Vector Art to Embroidery*

In order to achieve accurate representation of the customer’s image, you’ll need to:

- Eliminate complex elements
- Keep it simple
- Lose thin lines and impossibly small details
- Have the customer review and approve
- Agree on color choices at the beginning

*All Images provided by ArtSource.com*
Art Work

Matching to Pantone® Colors

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<th>Pantone®</th>
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Good Digitizing
The key to customer satisfaction

Does your embroiderer digitize in-house?

43% of embroiderers digitize in-house
43% digitize only simple designs
14% outsource everything
Digitizing

Keys to Good Digitizing

• Understand the fabric
• Minimize layers of stitches
• Minimize trims
• Proper density should provide sufficient coverage
• Determine if underlay is required
Digitizing

Keep it simple
Digitizing

What is Density?

0.2mm Density Spacing

0.4mm Density Spacing

0.6mm Density Spacing
Digitizing

Underlay – What is it & Why is it Necessary?

• Underlay is the name for the stitching you don’t see!
• Various types - single running line, perpendicular or zigzag
• Required for various reasons:
  • To stabilize fabric and backing to reduce movement
  • To lift stitching off the fabric, creating a more “puffed up” appearance
  • To push down fibers
  • To provide something for stitches to hold on to
• Using more or less underlay will affect the appearance
Digitizing

Underlay Improves Appearance of Stitches

See how correct underlay vastly improves stitch quality!
Edge run underlay prevents stitches from “bleeding.”
In this example the underlay has been designed as a feature of the design. The logo on the right has a firm base with a network of underlay stitches that push down the loops of the terry cloth towel. To reduce stitch count, it is not always necessary to completely cover the background, just use a more simple framework.
Good Components

• Quality thread improves production and run time
• Proper choice of thread: rayon, polyester or metallic
• Right thickness for design elements and cost savings
• Use #60 weight thread for fine detail & small text
• Quality backing and topping
• Strive for balance of fabric and embroidery
• Water soluble topping on fabrics with pile
• Finish the back side of the embroidery for a smooth surface
Components

Threads – so many to choose from...
Components

WHICH TYPE OF THREAD: Rayon or Polyester?

RAYON

- Natural wood cellulose from plants or trees, so environmentally friendly
- Good for use on today’s popular performance wear
- Natural high luster, soft feel
- Colorfast in 203 degrees F. wash water
- Flexible & soft, runs smoothly on machines

POLYESTER

- Man-made fiber
- For heavy duty washing – chef’s whites, athletic shirts, etc.
- Recommended for stonewash, chlorine & commercial laundering
- Compatible with laundering of heavily soiled work wear
Components
Rayon and Polyester #60

Finer than 40 weight, 60 weight is ideal for small letters and fine detail.
Components

*Rayon #30*

1.5 times thicker than 40 weight, 30 weight provides greater coverage and less density with fewer stitches.
Components

*Frosted Matt #40*

This is the industry’s only matte finish *embroidery* thread.

- Pure, clear colors
- Can withstand sun’s UV rays
- Extremely soft effect & velvet feel
- Delivers small letters & detail
Components

*Fire-Resistant #40*

Before...

After...
Components

**Metallics**

Metallics are available in a range of various thicknesses and styles. Metallics are ideal for embroidery on fashion, sportswear, home decor and promotional products.
Components

Glow-in-the-Dark #40
**Components**

*Water Soluble Topping*

Improves embroidery on towels, arctic fleeces or open knits, as it provides a stable base on which to embroider.

It is ideal for use with small text, as it adds stability when stitching.
Good Partnering
A Good Embroidery Partner:

• Produces a high quality product consistently
• Has a reasonable turn around time
• Is dependable
• Does not subcontract your job
• Uses quality components
• Is a good digitizer or works with one
THE ELEMENTS OF GOOD EMBROIDERY

Thank you for your time and attention
Now it is time for your questions