

Matching checked and striped fabrics in a shirts production is a very demanding task, due to the matching conditions to be fulfilled and the accuracy needed. The key task is first to get in the position that markers can be planned exactly according to the repeat of the fabric avoiding blocking tolerances, and then to spread and match the fabric in a lay package according to the marker so that in the end the lay package can be net cut avoiding relaying and single piece matching. This is an example from one of our customers in India producing high quality shirts. The configuration of the used equipment is:

- **VEITH PinIT software**
- **VEITH Pin Table**



- **GERBER AccuMark CAD System**
- **GERBER GTxL Cutter with InVision System**

VEITH-PinIT Process

**VEITH
PinIT**

- fabric registration
- fabric management
- repeat calculation
- offset calculation

**GERBER
AccuMark**

marker planing

**VEITH
PinIT**

set up planing for
the VEITH Pin Table

**VEITH
Pin Table**

spreading and
matching
the fabric

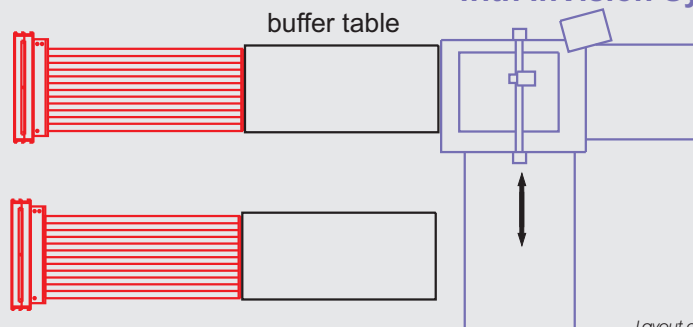
**GERBER
GTxL Cutter
with InVision**

- compensation of small
repeat variations
- cutting the lay package



VEITH Pin Table

**GERBER GTxL Cutter
with InVision System**



Layout of the cutting room

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Case study of a Shirts-Production

The case study carried out in two premier shirt manufacturers in Bangalore showed phenomenon results in decreased fabric consumption implementing the VEITH PinIT-Process and using the VEITH Pin Table. After installing the VEITH Pin Table it took about 6-8 weeks until the spreader teams got to the predicted productivity of 600 shirts per shift. This represents an increase in productivity of over 80%.

The experience also showed that under the VEITH PinIT-Process just 2-5% of the fabrics have too much variation in the repeat, with the consequence that perhaps the one or other piece could not be net-cut immediately after spreading. I.e. the concept of the VEITH PinIT-Process is an effective way for reducing costs on fabric and labor for the far majority of fabrics.

user 1				
Fabric	Consumption before using the VEITH Pin Table [m]	Consumption after using the VEITH Pin Table [m]	Fabric savings due to using the VEITH Pin Table [m]	Fabric saving
small checks	3,24	3,04	0,2	6,17%
one-way fabric roll no 1	2,96	2,74	0,22	7,43%
one-way fabric roll no 2	3,6	3,35	0,25	6,94%
		average:	0,22	6,85%

user 2				
Fabric	Consumption before using the VEITH Pin Table [m]	Consumption after using the VEITH Pin Table [m]	Fabric savings due to using the VEITH Pin Table [m]	Fabric saving
one-way fabric - stripes	3,35	3,27	0,08	2,39%
checks style 1	3,19	3,14	0,06	1,72%
checks style2	3,22	3,09	0,13	4,04%
		average:	0,09	2,72%

The results of course depend very much on the previous used method, i.e. the method used before the VEITH PinIT Process was implemented and the VEITH Pin Table was installed, but in the end there will be always very interesting savings

Fabric savings calculation :				
spreading capacity per shift (shirts)		600	shirts / shift / VEITH Pin Table	
average consumption per shirts		1,63	m / shirts	
through put per shift per VEITH Pin Table		978	m / shift / VEITH Pin Table	
fabric costs per m		1,5	US\$ / m	
costs equivalent of through put per shift		1467	US\$ / shift / VEITH Pin Table	
savings from case study ...				
	user 1		user 2	
average fabric saving	6,85%		2,72%	
fabric saving per shift	100	US\$ / shift	39	US\$ / shift
total fabric savings in 1-shift operation per year at 300 working days per year:	30.000	US\$ / year	11.700	US\$ / year
total fabric savings in 2-shift operation per year at 300 working days per year:	60.000	US\$ / year	23.400	US\$ / year

On top of the above values come the costs savings because of the higher productivity, which will be another ~ 1500-3000 US\$ per year per VEITH Pin Table (depending on 1 or 2 shift operation).

The total above savings result in a ROI of 4 - 18

VEITH SYSTEM goes GREEN
We have installed a photo-voltaic system, generating over the year 35% more electric energy than we consume during the same period.