

O.C. Water Summit

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COO, St. John Knits

About St. John Knits

- Founded in 1962, became a vertical company in the 80's, from yarn manufacturing ascending to high fashion garments.
- In 1976 St. John moved from Los Angeles to Orange County. Since then Orange County and St. John grew together very rapidly.
- Today we employ approximately 1700 people here in the City of Irvine.
- We twist our own unique yarns here in Irvine and this has been the foundation of most of our unique knitwear throughout our history.



About St. John Knits (cont.)

- Color has been a key component of St. John's unique product. By being able to create colors that do not exist in the market, we have a competitive edge that we have developed over the years which has been a critical component of our success. This work is done on Derian Avenue in our Dye house.
- Our design operation works daily with our dye house in order to develop and refine colors days before sample completion.
- Our entire product development calendar and our unique length of time to market is all based upon our ability to develop base materials and colors on the fly.
- SJK is a unique part of a shrinking few that continue their manufacturing base here in the United States and we will continue to try to keep this as a core component of the brand, but having the ability to run a dyeing operation is key. If we are limited here, we will be forced to move all of our manufacturing. The dye house makes our current set-up acceptable. If it did not exist, we would join the industry trend and move operations, most likely, outside of the United States.



Water Usage

- We are aware of how important water is to every individual and to the environment.
- Water for St. John is used throughout the 7 different facilities and landscapes.
- However, the highest water consumption is for the dyeing of our yarns.
- We have a Dye house, and a vast amount of water is required in textile dyeing.
- With the exception of the dye house, we preserve water with consumption friendly faucets, toilets, and reduced water pressure. We also make employees aware of our environmental responsibility.



Water Usage (cont.)

- Consumption depends on quantity of material to be dyed.
- The highest quantity of water is used for rinsing; only less than $\frac{1}{4}$ of water is used for dyeing.
- At our Dye house we require water with no chlorine.

Gallons Consumed	
May 2007	220,000 gallons
March 2008	180,000 gallons
October 2008	125,000 gallons
March 2009	70,000 gallons

The reduction in volume here is driven by lower consumer demand and also efficiencies brought on by using pre-dyed rayon.

Incoming Water Cycle

- We are pleased with our water.
- Incoming water is high quality, low on hardness, and low and consistent on chlorine.
- Fresh water comes to facility
 - Water Softener unit 0-1 PPM (parts per million)
 - Carbon Filtration System for removal of chlorine
 - Holding tank
 - Dye vessel



Recycled Water

- Poor water quality affects our dyeing. Re-dyeing increases our consumption.
- Chlorine level is very inconsistent. It can get very high, but also very low.
- Water hardness is higher.
- Chlorine has negative effects on the dye and the material.
- Recycled water is heavily used with irrigation.
- Can a second supply line with recycled water be used for rinsing only??



Water Savings

- By purchasing pre dyed viscose, we are reducing the water consumption.
- When using SDR, less water is needed.
- We are working with Clariant (a big dye and chemical provider), to combine processes and have consequently fewer rinses to conserve water.



Water Savings (cont.)

- If water rates go up it will affect our business.
- If this quality source becomes too scarce, we may have to consider relocating.
- Considering this possibility, and if we get to this point, yarn manufacturing, knitting and warehouse would have to move since all of these departments are linked together and have to be located within close proximity.
- Dyeing per week
 - Minimum: 10,000 LB
 - Maximum: 50,000 LB

