

**Callebaut de Blicquy (CDB)** is a French company specialized in fibre and yarn dyeing – bleaching machines. Very concerned by the planet's requirement, CDB design several solutions including partial or complete water's recycling in order to preserve the resources with reduction of pollution from the source, with a global production cost optimized.

Since last 75 years, CDB provide a complete range of Fibre and Yarn dyeing machines for the textile industry. Their product range is as follows:

### 1. Vertical Polyclave :



- ✓ Loose fibre, Yarn package, Top, Ribbon. (Loaded on a material carrier). CDB provides the complete solution for loose fibre high density cake preparation and also loading of yarn package.
- ✓ Any types of materials such as wool, polyester, acrylic, polyamide, viscose, cotton bleaching & dyeing.
- ✓ Uses any types of dyes /chemicals available in the market for bleaching & dyeing process.

### 2. Hank Dyeing :

- ✓ CDB has developed a unique system that is already in use at many modern dye house, whereby loading and unloading of the hanks is done much more quickly with less manual effort. Hanks are directly loaded in boxes (operation is done at waist height for ease to the operator).
- ✓ The lid is positioned above the boxes. And with a simple and effective system of hooking, all is transported into the dyeing vessel.

### 3. Drying range for Fibre & yarn :

- ✓ CDB provides continuous line for fibre drying & bleaching which includes: Wet cake opener – Fine opener – Continuous hydro extractor – Dryer and finally production of end product in bale form. (Option is also available with batch process, that means fibre cake hydro extractor (batch hydro) and then cake opening and drying line)
- ✓ For yarn, CDB can provide hydro extractors and Rapid dryers with very short drying time.

### 4. Optilab – Optimisation of dyeing process:



- ✓ Increase of the productivity
- ✓ Optimization of the dyeing time
- ✓ Optimization of the chemicals quantity
- ✓ Reduce energy and water consumptions
- ✓ Reduce ETP requirements and pollution
- ✓ Reduce of regain and reprocess rates. (Right first time approach)

## **Advantages of Callebaut de Blicquy in fibre & yarn dyeing / bleaching process:**

- With a focus on package and fiber dyeing machines ranging from Laboratory Machinery to Dyeing/bleaching range to Dryer, CDB allow customers to obtain high & uniform color density of end product.
- Low liquor ratio - lower consumption of water & chemicals / dyes.  
Lower utility consumption – Less requirement of electrical power, Steam etc.

This technology results in savings of 30% of the water consumption, 40% of the steam consumption, 20% of electric consumption over conventional systems thereby reducing costs over the entire dyeing process including reduction of waste effluents and downsizing of waste treatment plant.

- Samples and pilot trials are conducted to evaluate the performance of the process and ensure the machines to perform as per specifications provided.
- CDB has invented dyeing machines with a Helicoidal pump which is placed inside of the dyeing kier. This Helicoidal pumps require No pipes, Very Low energy consumption, Optimal bath ratio, Easy maintenance, Very Short dyeing time cycle example: possible 55 minutes for polyester

Flow rate up to 10 cycles /minutes with a possibility of reaching 100 liters/min/kg (Depends on design of the machine capacity).

- A hallmark of CDB is their focus on after sales service. Training to machine operators to work in efficiently and optimise the process and working atmosphere. Field service engineers visits customers for an annual inspection.

### **CDB Reference in India :**

1. Precot Meridian Ltd. - Cotton bleaching plant of 21 tons/day capacity with polyclave capacity of 1300 Kg each.
2. AURO Dyeing (A Unit of Vardhman Textiles) -- Continuo Hydro-extractor 700 kg per hour.
3. Sintex industries Ltd – Cotton bleaching plant of 20 tons/day capacity with polyclave capacity of 1050 Kg each. Its complete Bale to Bale solutions – Right from Bale opener to end product delivery in bale form.
4. Patel Medicot Private Ltd -- Cotton bleaching plant of 15 tons/day capacity with polyclave capacity of 1600 Kg each.
5. AURO Dyeing (A Unit of Vardhman Textiles) – Modifications of existing fibre & yarn dyeing machines. Also installation of new CDB fibre and yarn dyeing machines along with cake preparation and dryeing line.

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