

**BRAND INDIA ENGINEERING  
E-CATALOGUE**

Date: 02-04-2025

# UNITOP AQUACARE

**501 DOSTI  
PINNACLE, PLOT E/7,  
ROAD 22, MIDC  
WAGLE  
THANE  
PIN - 400604**

**ASHISH MONDKAR / SANJAY SAWANT /  
SANJAY PAL /SUSHIL KUMBHAR  
PHONE - +91 22 41929300  
EMAIL -  
[MARKETING@UNITOPAQUACARE.COM](mailto:MARKETING@UNITOPAQUACARE.COM)  
WEB - [WWW.UNITOPAQUACARE.COM](http://WWW.UNITOPAQUACARE.COM)**

UNITOP AQUACARE, is an ISO 9001:2008 certified leading engineering organisation with four decades of experience in Heat Transfer and Process Engineering projects for design, manufacturing, supply, installations and services. UNITOP AQUACARE is a trusted name in the field of Industrial Evaporation & Drying Technologies having more than 250 clientele worldwide with number of repeated orders. The Company is promoted by Mr. S N Mondkar, a Chemical Engineering graduate from IIT Mumbai having vast experience over 45 years in the Process Engineering Industry.

Products Description

**CAUSTIC RECOVERY PLANT**

Technical Details	Recovery of 90% caustic from weak lye & recycle back to Merceriser CRP results in substantial reduction in the size of effluent treatment systems like ETP, RO, Evaporators Payback within 6-9 months
ITC HS Codes	8442 30
Certification/ Standard	ISO
Issuing Agency	---
Date of Issue	12-12-2012

# BRAND INDIA ENGINEERING E-CATALOGUE

Date of Expiry  
End Use Sectors  
Product Images

### HOW CAUSTIC RECOVERY PLANTS HELP TEXTILE MILLS ?

- Reuse of Caustic back to Merceriser, to reduce Caustic Soda consumption.
- Hot water if produced can be used in process / boiler, to reduce Live Steam consumption.
- Reuse of Hot condensate in Merceriser, to reduce steam / water consumption.
- Recovers & Recycles Good Quality Water, to reduce water requirement.
- Reducing alkaline contents of effluent, to reduce acid consumption at ETP.
- Reducing TDS of effluents, to reduce the size of ETP and its operating cost.
- Meeting environmental standards, to enter global competition.

#### ORGANISATION

We are in business with textile mills with over 30 years and have brought many a process in the field of Evaporation, Engineering and Heat Recovery Systems with more than 50 Evaporation Plant world wide. Our efforts are aimed to make the paper highly strong, efficient and well designed Low pollutants much to the glory of 'Process Control Board'.

We also design Caustic Recovery Plant to suit the individual requirement and select the equipment from our standardized range to optimize plant design with respect to consumption of Steam, Power, Water and guarantee excellent yields without degradation of quality. Our norms on Equipments are a grade ahead of those by 'Water Textile Research Association'.

We supply plants loaded with these excellent features & supporting Documentation: the reason why we have in our LIST OF CUSTOMERS the reputed customers in India & in other countries like Sri Lanka, Nepal, South Africa, Indonesia, South Africa. We are preferred even in Global Competition.

And our after sales service is what our customers like the most. Apart from this, list of Repeat Customers which includes: *Woolen Mills, Cotton, Thermal Turbine, Dyeing, Coats, COTY, V. G. Dyeing, Bangalore, Rayon, Thermal Plant, Rayon, Textile, Apparel, Apparel, Cotton, Rayon, etc.* The above are not exhaustive list. Visit our web site.

We get totally involved with the customer on the well being of the plant. This is reflected in our specially designed computer based Operator's Training Program. On request we also undertake Annual Maintenance / Operator & Maintenance contracts.


#### FEW OF OUR LARGE INSTALLATIONS

PLANT	CAPACITY LFD FEED	HEAT SOURCE	MERCERISER BRAND
Blue Denim	1,75,000	2nd plant	Kulera
Woolen Text & Knit	2,00,000	3rd plant	Kulera
Thermal Papermill	1,40,000	3rd plant	Kulera
Rayon India	3,00,000	3rd plant	Final
PT Bussell Indonesia	2,40,000	3rd plant	Danar
PT Harsco Indonesia	300,000	3rd plant	Danar
NSL	1,50,000	Rayonray	Rayonray
Kangaroo Knitwear	2,00,000	Rayonray	Rayonray
Rayon Textile	1,80,000	3rd plant	Miller
Merceriser Knitwear	1,80,000	3rd plant	Miller

**UNITOP**  
Evaporation & Drying Systems  
G/F FLOOR, SECURAHARA, D. K. ROAD, RAJAPUR, THANE (S) 401 602, INDIA.  
TEL: 022-4041-4042 / 022-4041-5011 / 022-11171 / FAX: 022-4041-4041  
MOBILE: 9324400091 / 9323393953  
E-MAIL: info@unitop.org  
WEB: www.unitop.org

## Get best from the waste !

Recover huge profits draining with your effluents



### CAUSTIC RECOVERY PLANT

**FOR MERCERISERS**

PRODUCT RANGE:

- CAUSTIC RECOVERY PLANT
- ZERO EFFLUENT DISCHARGE SYSTEMS
- FLASH HEAT RECOVERY SYSTEM
- VACUUM / SPRAY DRYERS
- HERBAL EXTRACTION SYSTEMS
- ICED/SALT MANUFACTURING

**UNITOP**  
Evaporation & Drying Systems  
An Organisation with a difference

#### NEED OF CAUSTIC RECOVERY

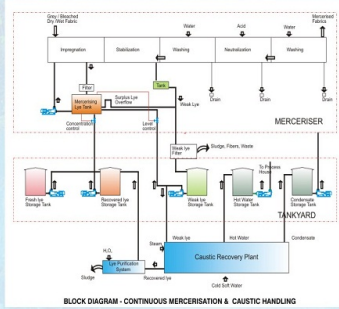
Mercerisers in textile mills are used to mercerise desized / scoured / bleached / dyed yarn / knit / fabric. Depending on the design of Merceriser they generate substantial quantity of dilute caustic liquor - wash liquor of concentration of about 20 - 60 gpl containing impurities of various nature. If drained to effluent treatment plant, it creates substantial loss of caustic soda and also severe problems in meeting the environmental standards.

Caustic Recovery Plant concentrates wash liquor and allows recycle of Caustic Soda lye to Merceriser and also recovers water to reuse. This makes the Plant highly profitable venture.

#### HOW CAUSTIC IS RECOVERED ?

Weak liquor containing caustic at low concentration is heated to its boiling point with the help of heat source like Steam, Thermal Oil or even waste heat. Boiling liquor is flashed at lower pressure / temperature and its vapors so generated are re-used in the next stage. By repeating this process in multiple stages, water from weak liquor is evaporated to achieve product with caustic concentration at 250 to 350 gpl in case of dry cloth merceriser or 400 - 450 gpl in case of wet cloth merceriser. The final concentration is selected to eliminate the possibility of excess weak lye overflow.

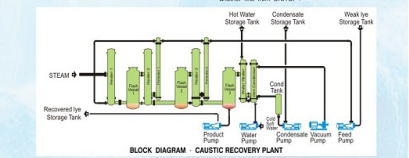
#### IT IS ALL ABOUT CAUSTIC HANDLING, RECOVERY & PURIFICATION - AT SINGLE SOURCE



#### WHY UNITOP CAUSTIC RECOVERY PLANT ?

Unitop Aquacore has earned a name in Caustic Recovery Plant technology, thanks to its super economy plant design. We are largest supplier of Caustic Recovery Plants, world wide. Our strength is many folds:

- OPTIMISATION**  
Depending on the process conditions, we design proper circuitry to optimize the Conversion conditions and resultant Material of Construction.
- SELECTIVE USE OF MATERIAL OF CONSTRUCTION**  
We supply the plant in Material of Construction which can best fit the investment while accommodating the quality requirements.
- TAILOR - MADE DESIGN**  
UNITOP design tailor - made systems to suit individual customer's needs & the local conditions like fuel prices, quality of water & even the space constraints.
- LOWEST STEAM CONSUMPTION**  
Our unique selection of Parameters & steam saving innovations improve the steam economy to as high as 6.5 kg evapn / kg of steam. This is possible because of provision of:  
  - Optimum Number of Stages
  - Multiple Condensate Flashing System
  - Feed Preheating system
  - Thermo compressor (TRC) when necessary
 The steam consumption is 20% - 30% lower than other manufacturer. Unbelievable but True! Optimum Heat Economy for every plant works out to ensure value for money.
- CONDENSATE QUALITY**  
Monitors provided in Flash Tanks ensure good quality of condensate with pH in the range of 7 - 8, resulting in minimum loss of caustic through condensate & by the way of Pollution Control Boards.
- EXFLEXIBILITY IN PLANT DESIGN**  
Our plant can generate hot water at such temperature that all of it can get consumed, in which case, generation of Hot water can recover the cost of steam supplied to evaporation plant, making caustic recovery virtually Free! In case, hot water generated cannot be consumed, we have option UNITOP's unique feature - Adiabatic Evaporator utilizes the exhaust vapor from the last stage. This reduces Steam consumption significantly.
- MODERATE POWER CONSUMPTION**  
Proper selection of pumps to maintain high pumping efficiency results in moderate power consumption.
- LOW MAINTENANCE**  
Moving parts of the plant are Pumps only - resulting in low maintenance cost - about 2 - 3% of the total project cost.
- LOW SPACE REQUIREMENT**  
Our plants are compact, with low headroom requirement. All operations are from Ground Level. Plant can be fitted inside or above the processing house.
- EFFECTIVE AUTOMATION**  
Entire plant operations is automated and hence the plant can be monitored & controlled by a single person. Advanced plants are equipped with Level, density, pH controllers along with safety modules and PLC controlled operations with DASSCAD, Touchable alarming modules - another first from UNITOP!



Sectors of Interest  
Countries of Exports

TEXTILE , PHARMA  
BANGLADESH, BRAZIL, CHINA, HUNGARY, INDONESIA, PAKISTAN, SPAIN, THAILAND, TURKEY

## BRAND INDIA ENGINEERING E-CATALOGUE

Foreign Collaboration	NIL
Is OEM Supplier?	Yes
Is After Sales Service Provider?	Yes
Importance of niche products	
Potential market of niche products	
Product Supply Record	
Patented Technologies	
Awards/Accolades	