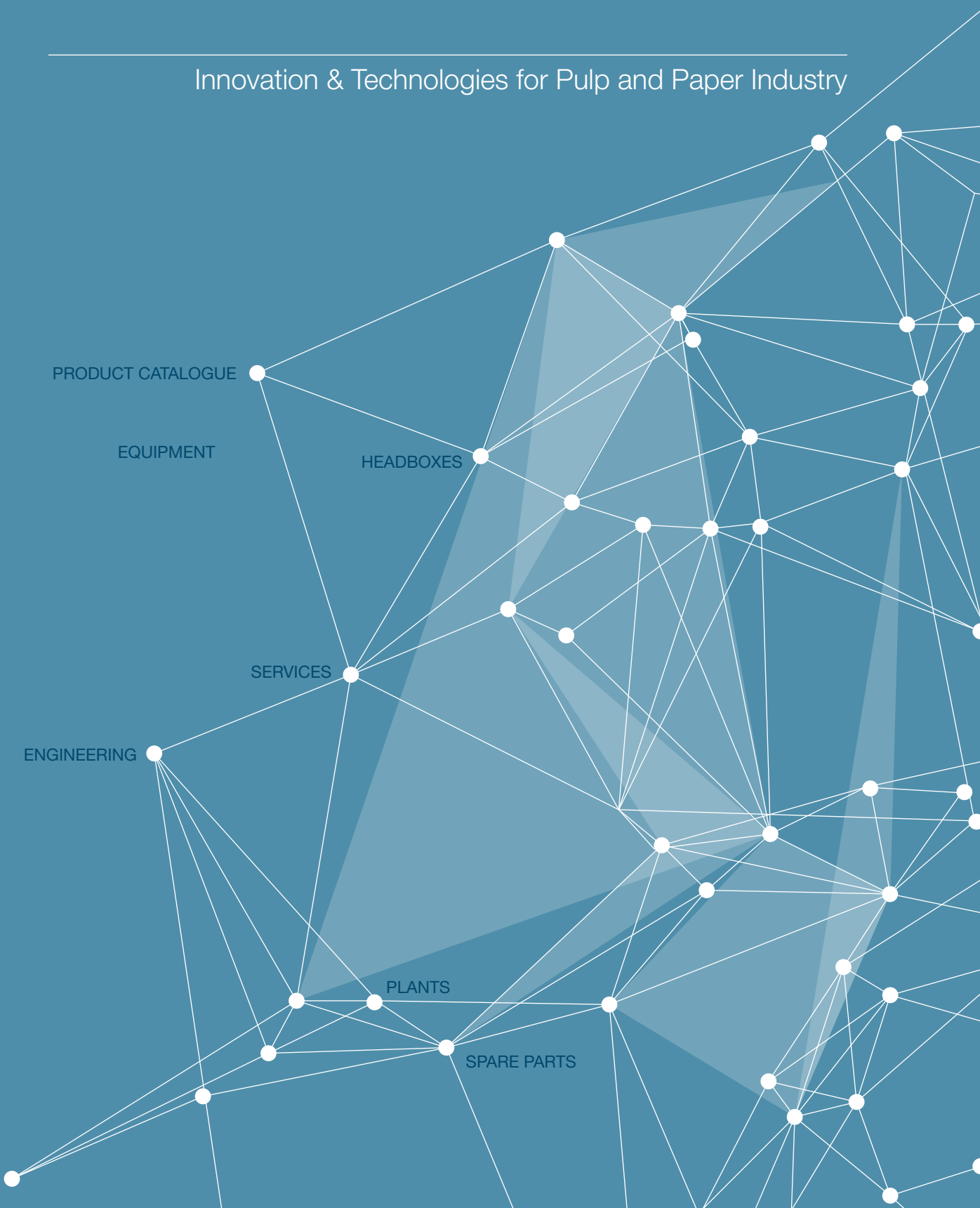
COMER TEK

pulp and paper equipment

Innovation & Technologies for Pulp and Paper Industry



COMER TEK pulp and paper equipment

Moving forward with innovation and experience

Comer Spa was founded in 1960 and by 50 years activity it became a leader company all over the world in the production of paper making equipment, gaining good references for the quality of its machines, the solutions suggested and its installations performance (both new plants or rebuilding of existing lines).

In 2012 a new generation of shareholders took over Comer assets, founding Comertek, a simplified and lean company, able to continue the development of engineering area, production and services, based on a 50 years know-how.

A new entity, having same potential capability to grow and leave a positive and remarkable image in the paper Industry.

Flexibility, performances, quality of paper and **rapid return in investment** are the core of Comertek's customer policy and our clients' main goals to be achieved thanks to high-quality products and advanced engineering systems.

Engineering
Customer Service

Services

COMER TEK pulp and paper equipment

Engineering

Comertek engineering team works to increase performance and quality of paper and tissue, reducing both waste, risks and costs.
Research and **innovation** are the key-points to supply single products and complete plants **reducing energy and water consumption and minimizing maintenance operations**.

Designing a complete plant, single equipment or upgrading an existing installation, Comertek engineers give a **full support and all competence needed** to increase quality and performances

Our clients will have our support during Installation, start-up and application of auxiliaries whenever demanded,

Customer Service

Comertek professionals are skilled to improve the production efficiency, **working closely** with customers to monitor, maintain, repair and upgrade technical assets.
Comertek experience – from replacement parts to maintenance programs – allows customers to protect and extend the equipments life and reduce lifecycle costs.

Comertek customer service includes:

- Surveys/Inspections at Paper Mill
- Field services
- Start-up
- Maintenance
- After sales spare parts

Plants
Equipment
Headboxes
Spare parts

Products

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Plants

Comertek is a worldwide leader and supplier of **complete systems and technologies** for de-inking stock preparation, from pulping to machine chests, including sludge/reject treatment and water clarification.
Comertek offers a wide range of stock preparation plants, process application and equipment of paper industry.
A deep knowledge of individual equipment to be manufactured allows Comertek to design and develop plants for each recycled paper type and integrate machines for the entire processing system.

Equipment

Comertek manufactures single machinery and components for recycling of packaging grade and fibers containing ink deposits to be used in the water paper processing and recycled fiber production.
Each machinery is designed to work independently in a rebuilt or upgraded plant, integrated to other systems or in a new installation.

Comertek engineering team supports the client during each step of the process: design, planning, erection and start-up of the plant in order to **improve performances** and **increase the machinery life cycle**.

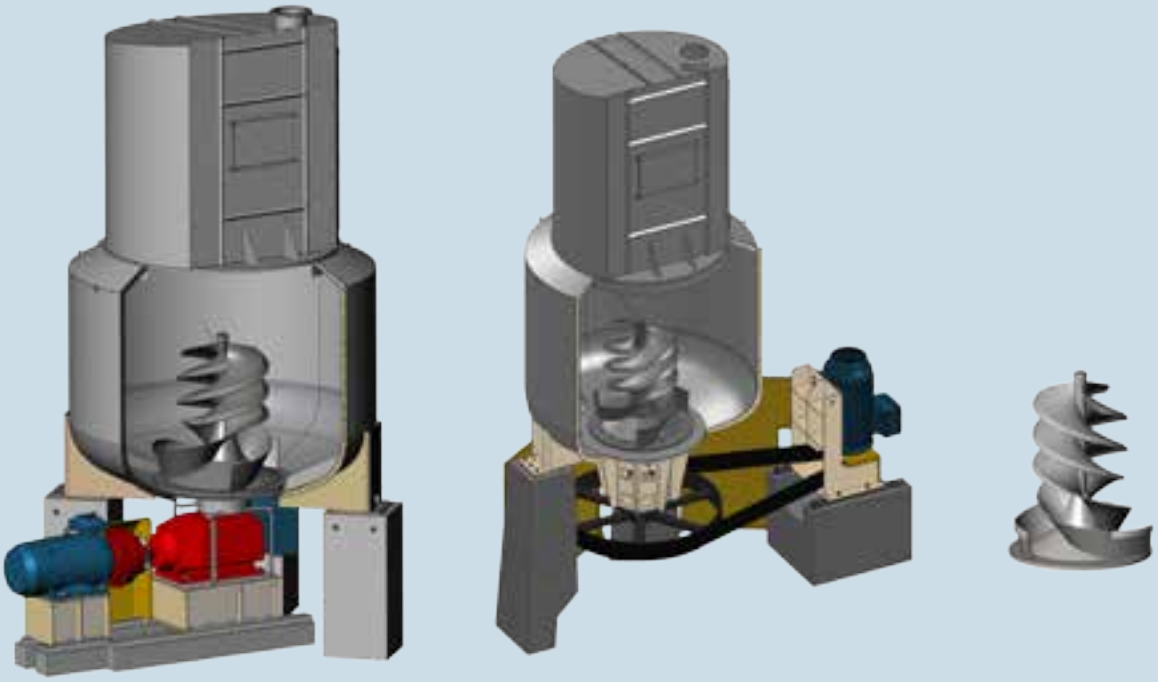
Headboxes

We have more then 60 years of experience in design of air padded (rectifier rolls type) and hydraulic headboxes. Our know-how led to a design that offers a jet free of flakes and contrails, with a uniform basis weight profile across the full machine width.
Dilution system profile control can be applied in the air padded and hydraulic head boxes to improve the final quality of paper.
Comertek manufactures air padded (rolls type) and hydraulic head box up to 6m (240“ pond width).

All finishing and methods of manufacture applied are special ones, reaching tolerances and surface finishing of high precision.

Spare parts

Spare parts guarantee **a longer life to machinery** and a **continuous production flow**.
Comertek provides the proper spare part component corresponding to the original Comer equipment and all technological upgrades and optimization for each part.



Pulper **HDP**

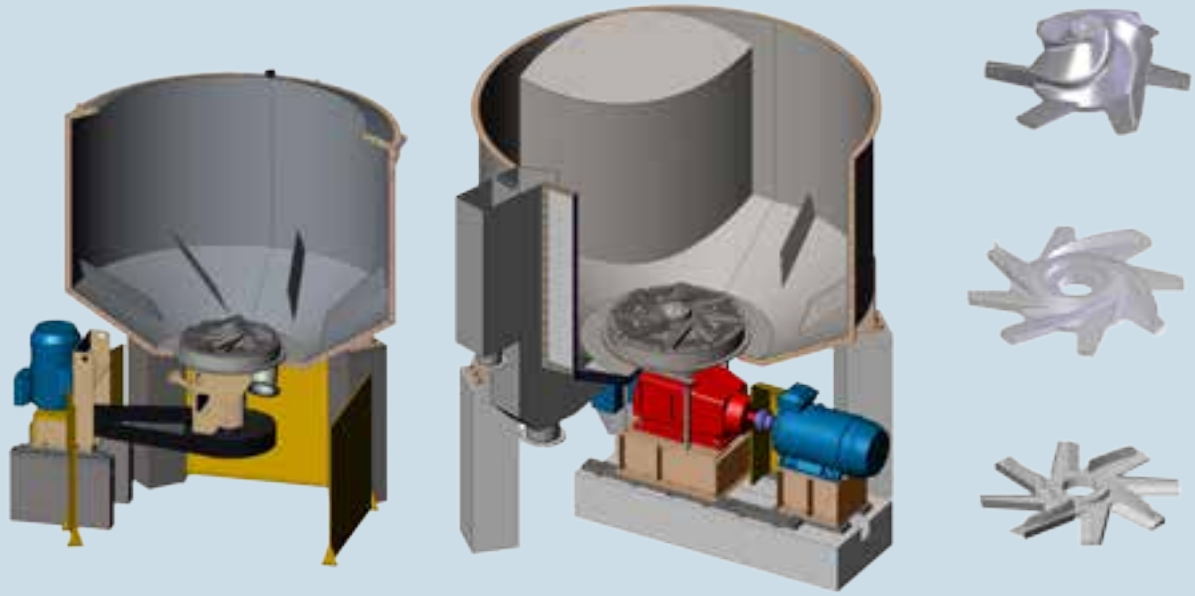
Comertek High Density Pulpers are recommended for handling the widest range of furnishes like:

- Secondary fibres, specially to get high quality de-inked pulp
- Wet-strenght and laminated papers (used HDPF model with perforated plate)
- Virgin pulp

They operate batchwise at a consistency up to 22% (depending on the furnish). Due to the newly designed, patented "Twister" rotor Comertek high density pulpers allow to achieve considerable advantages in comparison with any other pulper:

- Higher friction action among fibers due to the high consistency of the stock: this action allows the ink-detachment improvement, safeguarding the final quality of the fibers (in terms of strength, tears, burns, etc)
- Space reduction for installation
- Lower energy consumption
- No reduction of reject sizes. The reject keeps original dimensions, to be separated from the stock very easily

Model	Vat Volume	Production	Width	Lenght	Height	Installed Power
Size	m3	MTD	mm	mm	mm	kW/hp
HDP-5	5	39 to 48	2600	4650	3650	110/150
HDP-8	8	62 to 76	3900	5450	3850	200/250
HDP-10	10	77 to 95	3980	5450	4100	200/250
HDP-12	12	94 to 115	3980	5290	4850	200/250
HDP-15	15	117 to 143	4350	6080	5050	315/400
HDP-18	18	140 to 172	4350	6090	5990	315/400
HDP-22	22	171 to 209	4080	5200	4990	400/500
HDP-25	25	194 to 238	4080	5200	5290	400/500
HDP-30	30	233 to 285	5090	7050	5185	630/850
HDP-35	35	272 to 332	5090	7050	5770	630/850
HDP-40	40	311 to 380	5400	7250	5620	710/900
HDP-50	50	389 to 475	5150	8230	6850	900/1200



Pulper **LDP**

Comertek Low Density Pulpers work at an operating consistency of 4 to 6% and are suitable to treat recycled paper, virgin pulp, broke system and for many other applications.

Low density Pulper can work either in continuous or batch operation type depending on the type of furnish.

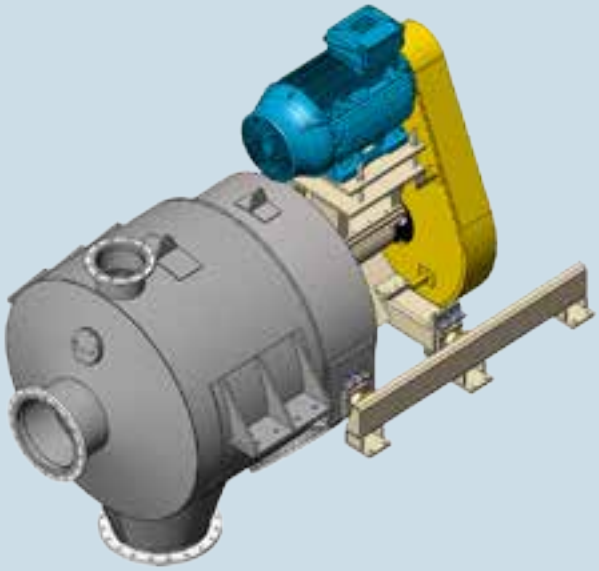
The Vat design can be traditional shape or D-Cord shape.

The de-fibering process is excellent as well as the slushing operation.

The elimination of the heaviest contaminants shall be carried out through the junk trap located in the bottom part of the vat.

For the lighter contaminants, such as wires and plastic (OCC pulping), the removal can be done providing the LDP with auxiliary equipment (i.e. ragger and rope cutter).

Model	Vat Volume	Production	Width	Lenght	Height	Installed Power
Size	m3	MTD	mm	mm	mm	kW/hp
LDP-6	6	31 to 39	2850	3700	3670	55–75/75-100
LDP-8	8	45 to 55	2950	3700	4100	75/100
LDP-12	12	63 to 77	3250	4170	4400	90–110/125-150
LDP-16	16	81 to 99	3660	4230	4550	110/150
LDP-18	18	90 to 110	3840	4460	4450	132/175
LDP-20	20	115 to 141	3860	4640	5330	132-160/175-200
LDP-26	26	148 to 182	4460	5200	5330	200–250/300-350
LDP-35	35	200 to 244	5010	5870	5380	250–400/350-500
LDP-50	50	291 to 355	6100	5970	5310	315–500/400-700
LDP-70	70	405 to 495	7600	8790	7920	500–800/700-1100



Epurex **PS**

Comertek Epurex dumping screen consists of a unit system, combined with a high density pulper. In such system the separation and removal of contaminants from suspended fibers is obtained by the Epurex screen, while the pulper, without perforated plate, is only suitable for high-density pulping.

The high density pulper, thanks to the special rotor shape, prevents stock contaminants from being minced so that their removal will be easier in the following EPUREX screen stage.

This equipment has a special rotor, provided with three blades,keeping the perforated plate clean and allowing contaminants to be stored in the screen bottom.

- Easier & cheaper rejects removing thanks to just one discharging point
- Space installation saving (compact design)
- Possibility to have the accept on the right or left side (increasing the flexibility)
- Lower consumption

Model	Volume	Width	Lenght	Height	Installed Power
Size	Lt.	mm	mm	mm	kW/hp
PS0	650	1460	2320	2190	22/30
PS1	1000	1560	2460	2270	30/40
PS2	2000	2050	3300	2970	55/70
PS3	3000	2250	3460	3130	90/125
PS4	4500	2550	3990	3545	110/150
PS5	6300	2750	4090	3650	160/200

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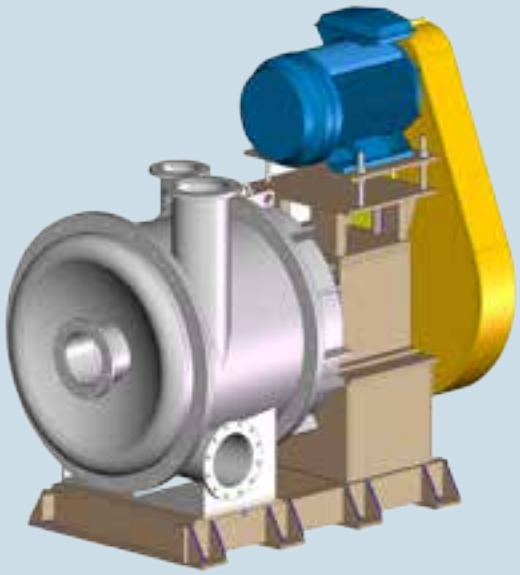


Detrasher **PSC**

A detrashing system increases the capacity of the continuous LD pulper, keeping the pulper vat clean and providing a pre-screened stock, as well as reducing the pulping cycle time. The efficiency in contaminants removal is increased by far as it removes both light weight and heavy rejects.

The unit is installed in the pulper area, which is provided with a junk trap in the bottom part, connected by a pipe with pneumatic valve.

The operation of the detrasher must be automatically controlled: light contaminants are sent directly in a reject drum (trommel),heavy contaminants are sent to reject conveyor, whilst the accepted stock, after crossing a perforated plate (holes diameter from 8 up to 12 - 14 mm.), reaches directly the pulper dump chest.

Model	Volume	Width	Lenght	Height	Installed Power
Size	Lt.	mm	mm	mm	kW/hp
PSC 1	1000	1510	2610	2900	55/70
PSC 2	2000	1560	2675	3050	90/125
PSC 3	3000	2100	3320	3310	132/175

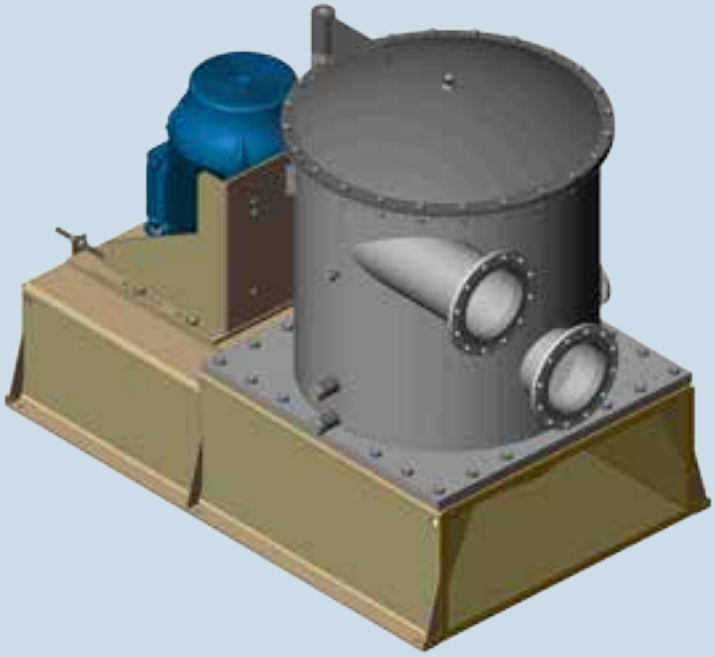
HD Cleaner **DP/DPA**

The high consistency cleaner provides continuous elimination of heavy contaminants such as stones, staples, wood, nails, nuts, and other debris from waste paper suspensions at consistencies ranging from 3,0 to 5,0%. By removing these contaminants, the high consistency cleaner protects from damages or accelerated wearing and enhances the performance of the pressurised screens, refiners, deflakers and other equipment.

The stainless steel cones are installed in a hefty cast iron housing. This very strong construction protects the unit from damage. The lower section of the cone, used for high speed final separation, is available in different hi-abrasion resistant materials, such as plexiglass lined with silicon-manganesium steel, or safety glass. Two types of high consistency cleaners are available, both for manual or automatic contaminant removal.

By feeding the stock through the tangential inlet, the slurry is accelerated into rotating motion as it enters the cyclone to create a high-speed vortex. The high-density contaminants are separated at the bottom of the cyclone by centrifugal force. The debris is then rejected either manually or automatically through a junk trap. The clean stock is accepted through an outlet at the top of the unit.

Model	Flow rate	Production	Width	Lenght	Height
Size	lpm	MTD	mm	mm	mm
DP5/DPA5	500	36	924	270	2490
DP8/DPA8	800	58	990	425	3290
DP12/DPA12	1200	86	990	425	3290
DP20/DPA20	2000	144	990	437	3290
DP30/DPA30	3000	216	990	540	4350
DP40/DPA40	4000	288	990	540	4350



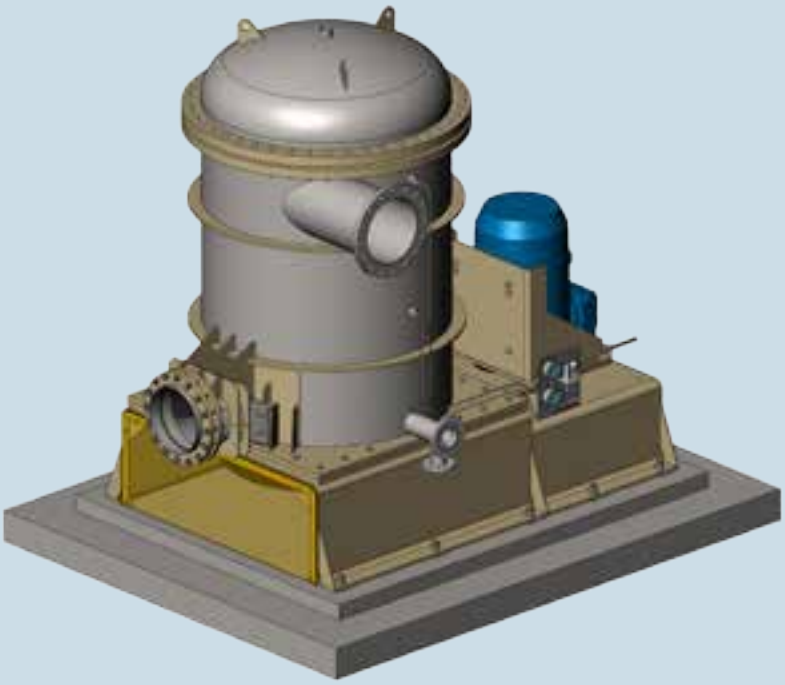
Screen **ECL**

Comertek ECL Screens are designed for low consistency screening in stock preparation processes with the aim of optimizing the removal of contaminants including plastic, stickies, and polystyrenes.

Comertek ECL Screens are designed with very narrow slots which optimize the rejection of contaminants from the stock. The construction of the screen body consists of a stainless steel plate with a tangential inlet pipe, and outlet pipe and reject pipes.

Model	Production	Installed Power
Size	MTD	kW/hp
ECL 5	30 to 90 *	30/40
ECL10	60 to 180 *	45/60
ECL 20	140 to 350 *	55/70
ECL 30	170 to 450 *	90/120

*= on the basis of furnish, consistency and type of basket (holes or slots)



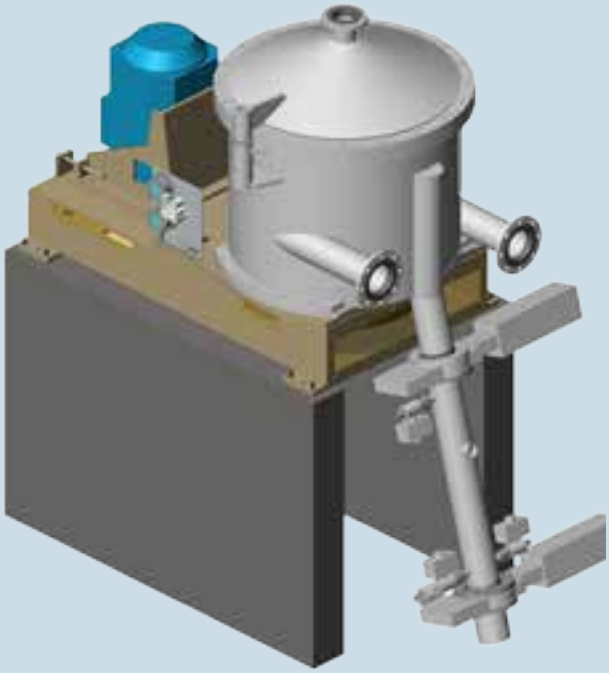
Headbox Screen **EP**

Comertek screen EP (pressure screens) are used in the approach flow system for the screening of all stock grades. They can be equipped with holes or slotted baskets.

Screen EP, in order to get the highest efficiency screening, works according to the centrifugal principle. Thanks to the configuration of rotors as well as foils, the rotor shall be free of stringing and pulsation reduced at the minimum.

Model	Production	Installed Power
Size	MTD	kW/hp
EP 5	50 to 90 *	30/40
EP 10	100 to 190 *	45/60
EP 20	200 to 250 *	55/70
EP 30	280 to 450 *	75/100

*= on the basis of furnish, consistency and type of basket (holes or slots)



Coarse Screen **STRALIS ST**

Stralis screens have been designed for high consistency coarse screening of secondary recycled fiber with the aim to optimize the removal light contaminants such as plastic, stickies, polystyrene, etc and also heavy contaminants as glass, staples, stone, wood.

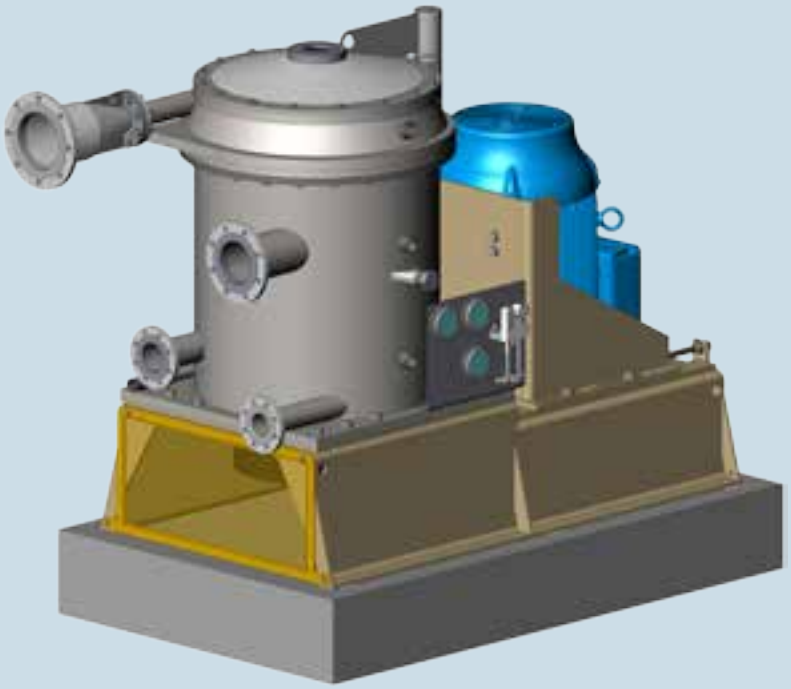
The machine consists in a rotating basket with internal fixed foils, creating some counter-washing pulsations.
The pulp reaches the basket tangentially and rotates with it in the same direction.

The accept goes inside through the holes, while contaminants are confined outside. Thanks to its soft actions as regards the contaminants, the machine is really interesting for an application where there are small thickness plastics.

The absence of force-point between heavy contaminants and basket allows the removal of high density cleaner.
Stralis screens, thanks to their special features, can give higher throughput, screening efficiency and equipment operation (possibility to treat Tetra-Pack paper).

Model	Production	Installed Power
Size	MTD	kW/hp
STRALIS 5	60 to 75 *	30-37/40-50
STRALIS 10	110 to 150 *	45-55/60-70
STRALIS 20	250 to 300 *	75-90/100-125

*= on the basis of furnish, consistency and type of basket holes diameter



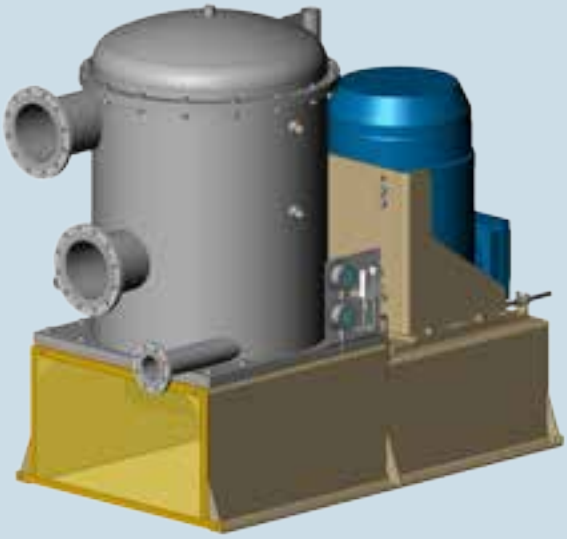
Screen **ZEPHYR ZE**

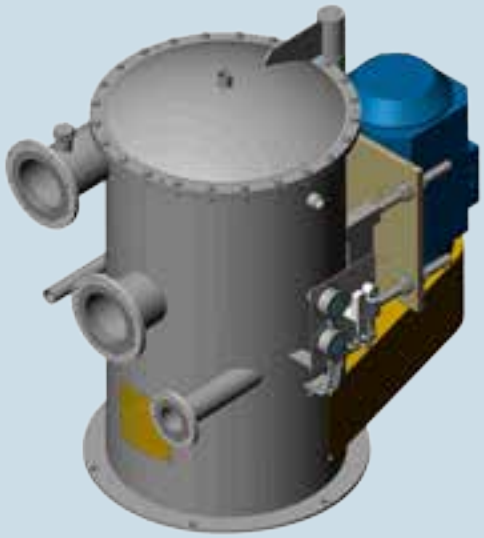
Zephyr is a new and innovative compact screen: two baskets in one machine allow the machine to perform well at medium and low consistency achieving a high level of contaminants removal with low specific energy consumption.

APPLICATION:
- Fine and coarse screening
- DIP plant and Broke system

FURTHER BENEFITS:
- Selective separation and independent rejects
- High screening efficiency & performance
- Energy saving with accepts & rejects controls
- Heavy reject good removal thanks to cleaner on board (OPTIONAL)
- Considerable installation and space saving
- Light reject excellent removal thanks to a new design of cover
- Low fiber losses

Model	Production	Installed Power
Size	MTD	kW/hp
Zephyr 5	90	55/70
Zephyr 10	200	90/120





Screen **EC**

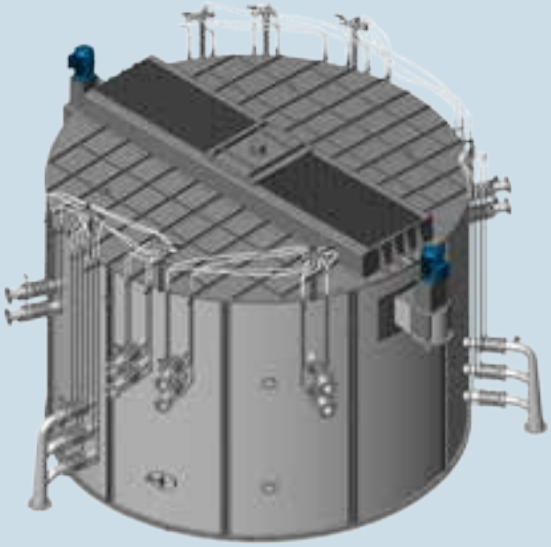
Comertek screens have been designed for high consistency screening of secondary/recycled fiber and virgin pulp with the aim to optimize the removal of contaminants such as plastic, stickies, polystirene, etc.
Comertek screens, thanks to their rotor can give higher throughput, screening efficiency and equipment operation.
The advantages of new Comertek screens EC are:

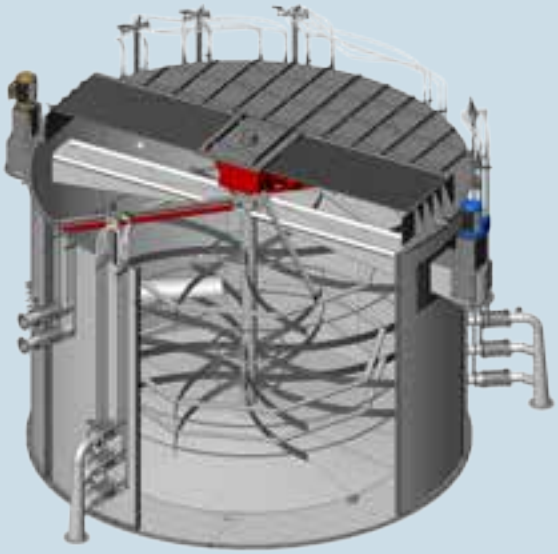
- Stable operation at high consistency up to 4,5%
- Use of narrow slots which optimizes the rejection of contaminants from the stock
- Possibility to use different baskets with slot width 0,10-0.35 mm and holes diameter 1,2-2.6 mm working at high consistencies
- Elimination of blocking thanks to the patented internal rotor, which divides and distributes the internal flow between rotor and basket
- Low contaminant fragmentation
- Reduced specific power
- Low fractionation and thickening factors
- Reduction in overall dimensions
- Highest installation flexibility

Comertek screens EC represent the best choice to reduce the contaminant level in the final product and well as to increase the final paper quality.

Model	Production	Installed Power
Size	MTD	kW/hp
EC 3	28 to 44*	30/40
EC 5	53 to 89*	45/60
EC 10	106 to 177*	90/120
EC 20	213 to 354*	160/200

*= on the basis of furnish, consistency and type of basket (holes or slots)





Flotation Cell **FCB**

Comertek's deinking cell is a leading product in the de-inking technology. A selective separation process utilises air to separate ink particles from pulp suspension. As the air bubbles rise through the cell, ink particles stick to the bubbles and are carried to the surface of the pulp for removal, by reactor.

Operational benefits:

- Single cell with multistage de-inking
- Ink collection at five different levels
- Different air bubble size at each injection level
- Additional air release by variable speed rotating reactor
- Ink removal on a wide spectrum of particle size
- Efficiency up to 98% depending on furnish and process
- Higher ash removal efficiency with lower reject rate
- Better control of the reject rate with lower fibre loss and higher brightness level
- Non plugging type injectors
- Space saving installation
- Maximum flexibility for handling different kinds of furnish
- High performance with laser and UV printed furnish

Model	Production	Power
Size	MTD	kW/hp
FCB 1	40	5,5/7.5
FCB 2	80	7.5/10
FCB 3	121	9.2/12.5
FCB 4	174	11/15
FCB 5	201	11/15

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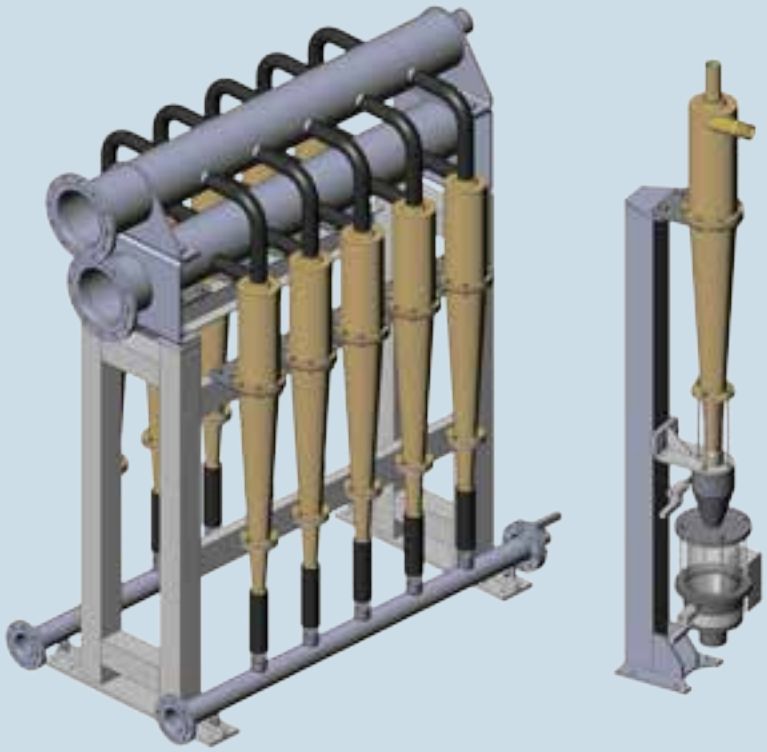


LD Cleaners **CTL**

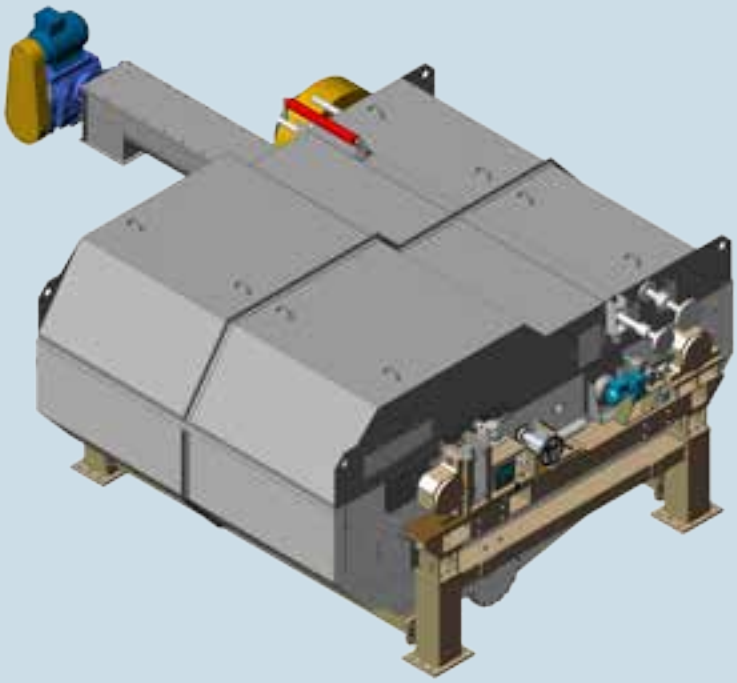
Comertek Low Density Cleaners are useful for removing the smaller impurities from the stock, like sand, specks, stickies still present in the stock which have a higher specific gravity compared to the pulp fibres. They operate at a consistency of a value included between 0,5 and 1,2% and treat all kinds of stock.

The material, polyurethane of a special formulation and exclusive to Comertek, is used to manufacture the cleaners as it has an array of advantages; only upon request the final cone can be in ceramic. Its high resistance to abrasion, chemicals, high temperatures and mechanical wear is really important for a production unit. The number of cleaners and stages to be used will depend proportionally on the cleaning degree required and the quality of furnishes being demanded.

It is common to have three or four stages Cleaners, installed in a vertical bank.
Comertek L.D. cleaners are available in two sizes, handling respectively 120 and 600/700 litres per minute. The smaller size Cleaners are applied for their high efficiency in heavy ink particles removal.

The reject nozzle is a separate component, which can be changed without removing the whole cleaner. This keeps maintenance costs lower and the job is accomplished in a shorter time.

Model	Core diameter	Cleaner Flow rate
Size	mm	lpm
CTL 1	80	120
CTL 6	160	600



Washer **AL**

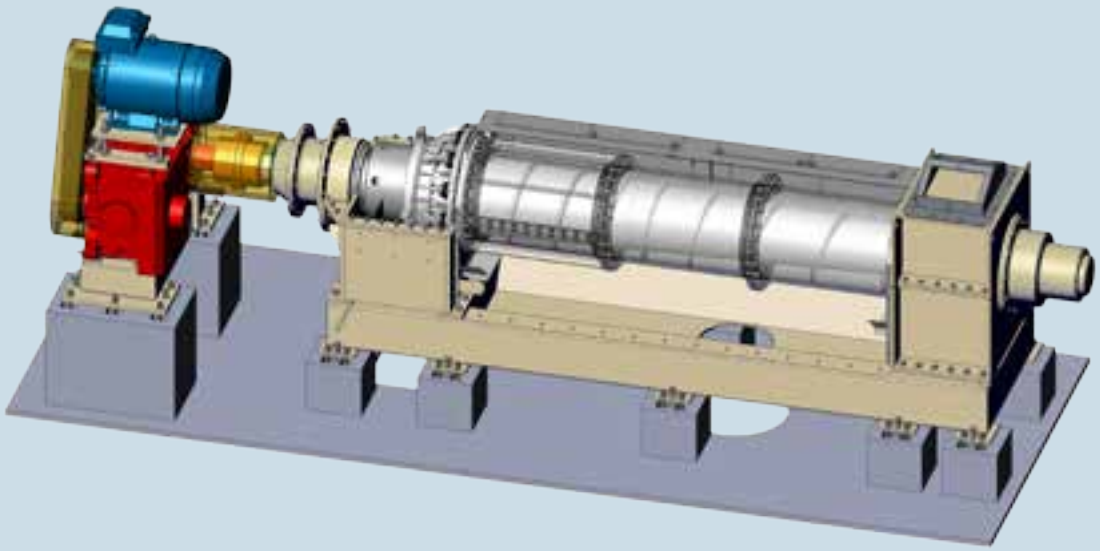
The high intensity Washers are a high speed double nip thickening machine, using a wire for the most efficient removal of small ink particles, fillers and other smaller contaminants.
The design is very compact and offers high washing capacity.

Pulp is injected between the first nip and the wire to create high feed capacity, after that it is deposited on the wire and dewatered around the breast-roll, reaching then the couch-roll where the pulp is dewatered a second time so as to have high washed and thickened pulp up to 12% consistency.
Washing/Thickening/Dispersion pressurized system stage will remove fillers/ashes and at the same time it will increase the final brightness.

Operational benefits:

- High ash removal efficiency
- Lower fiber losses
- Lower maintenance
- Lower power consumption

Model	Production	Installed Power
Size	MTD	kW/hp
AL 100	50	30/40
AL 200	90	55/70
AL 300	130	90/125



Screw Press **PV**

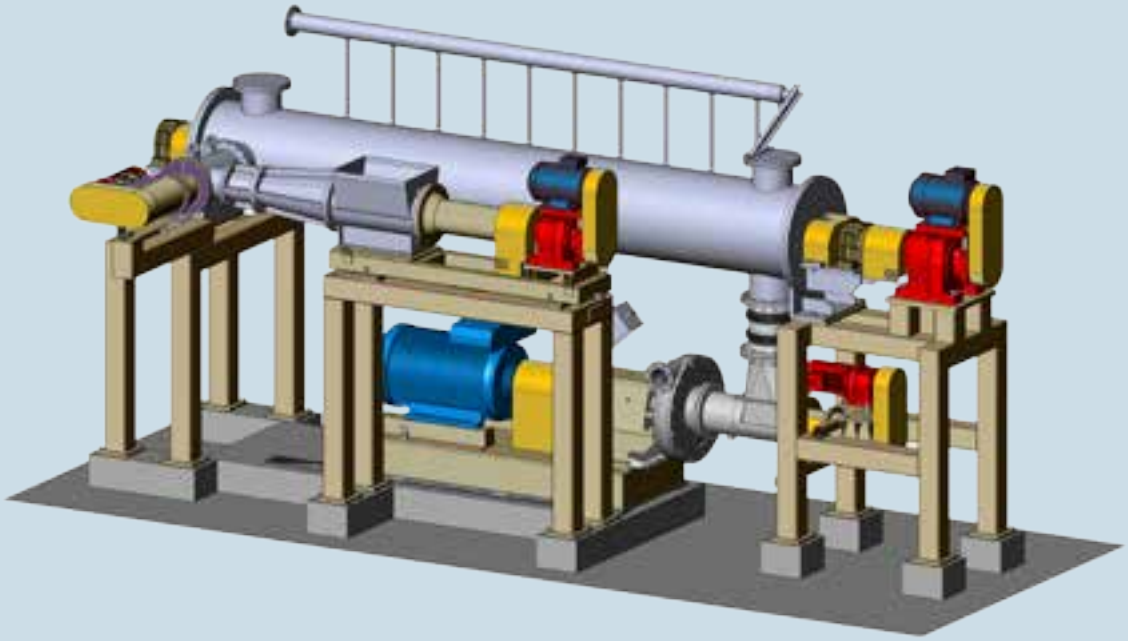
The Screw Press is a first part of compact dispersion system by Comertek.
It is used for thickening and dewatering applications in de-inking, virgin pulp and chemical pulping processes.
The different size of each Screw Press with varying discharge stock consistencies ensure excellent dewatering performance for many different operating conditions, thanks to a special screw geometry to meet various raw material requirements and applications.

The structure ensures a high and uniform discharge consistency. The basket hole pattern and the narrow tolerance between the screw and basket prevent from blocking.
Stock enters a chamber containing a compression screw rotor located inside a perforated basket. Pulp is then thickened by the liquid extraction from the incoming feed.
Screw presses can thicken fibers from approximately 5,0% to 10,0% consistency in inlet.

Applications include:

- Washing in de-inking plants
- Dewatering of dichloromethane DCM extractives
- Washing of high Kappa Kraft Pulp
- Sludge dewatering

Model	Production	Installed Power
Size	MTD	kW/hp
PV1	60	30/40
PV2	120	55/75
PV3	240	160/200
PV4	400	250/350

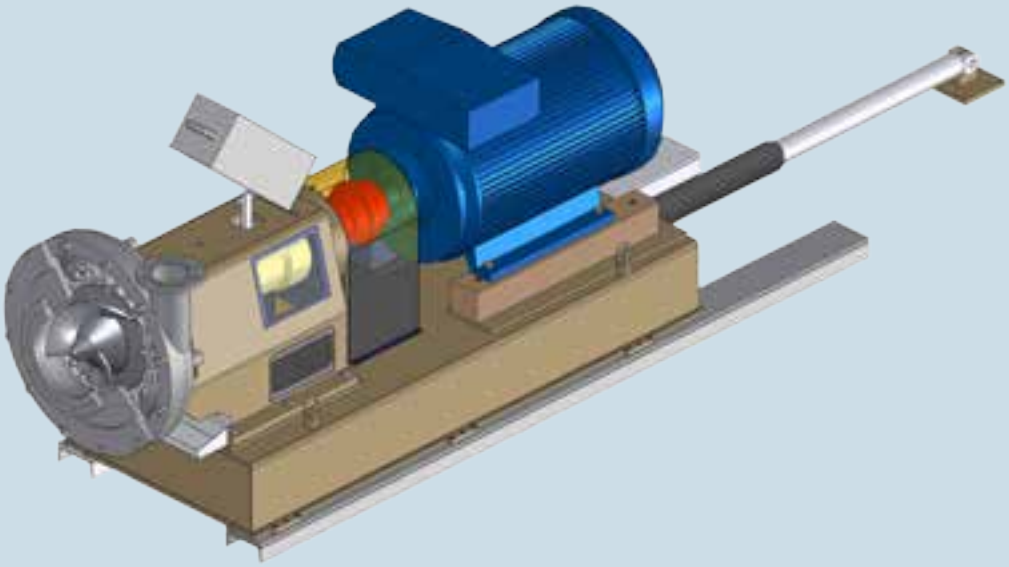


Pressurized Hot Dispersion System **HDS**

The aim of the PRESSURIZED HOT DISPERSION SYSTEM is to mix the pulp at 30% dryness with chemicals and steam, to obtain an homogeneous mixture at outlet. Under quality profile, it is a machine of high technology, thanks to its capacity of blowing fibers in small flocks, without affecting technological features.

The multipoint injection and the capacity of absorbing steam regularly, due to high stirring created by the rotor, in addition to the possibility of adding chemicals directly in the mixer, give as result of high efficiencies. The Hot dispersion system is positioned between the washer and the bleaching tower, and it is composed of: Plug screw, Shredder screw, Heating mixer screw, Infeeder screw and Pressurized Disc disperger.

Model	Production
Size	MTD
HDS 1	40 - 90
HDS 2	100 - 300
HDS 3	250 - 500



Disc Disperger **CDD**

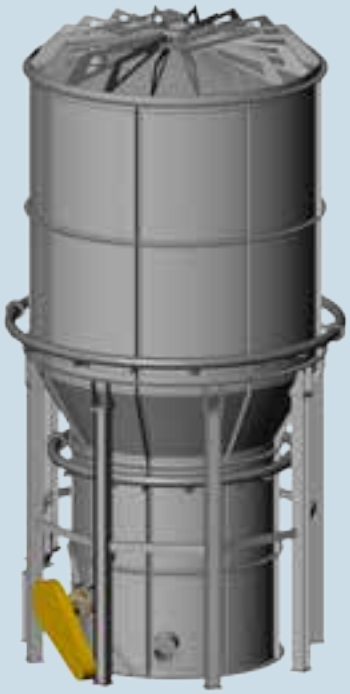
Dispersion operation is used in recovered fiber systems for reducing unwanted contaminants to a size not interfering with downstream processing. The dispersion also has the task of dislodging and reducing residual ink particles from the recovered fibers.

In bleaching systems, dispergers are used for intense mixing of the bleaching agents with the fibers.
Bleaching improves the optical characteristics of the stock. The brightness is increased with the penetration of chemical additives by bleaching the fibers and colour stripping as well as moving the colour spectrum. The use of a disc disperger in brown applications is mainly for dispersing waxes.

The Disc Disperger consists of two discs (stator/rotor) which are designed to maximize the dispersion of contaminants and minimize the refining activity.

The heart of the Disc Disperger consists of two parallel discs, separated by a gap of less than 1 mm. One disc is stationary and the other rotates. High consistency pulp is pumped into the centre of the rotating disc and then forced between the discs to the outer circumference.
Contaminants are effectively dispersed by the interaction of the fiber-to-metal and fiber-to-fiber action. The disperger breaks ink and dirt into particles having invisible sizes. The Gap is adjustable into many steps (each step is 0,1 mm).

Model	Production	Installed Power
Size	MTD	kW/hp
CDD 1	40 - 90	200 - 315 / 300 - 450
CDD 2	100 - 300	450 - 1200 / 600 - 1600
CDD 3	250 - 500	1000 - 1200/ 1350 - 1600



Bleaching Tower System **BTS**

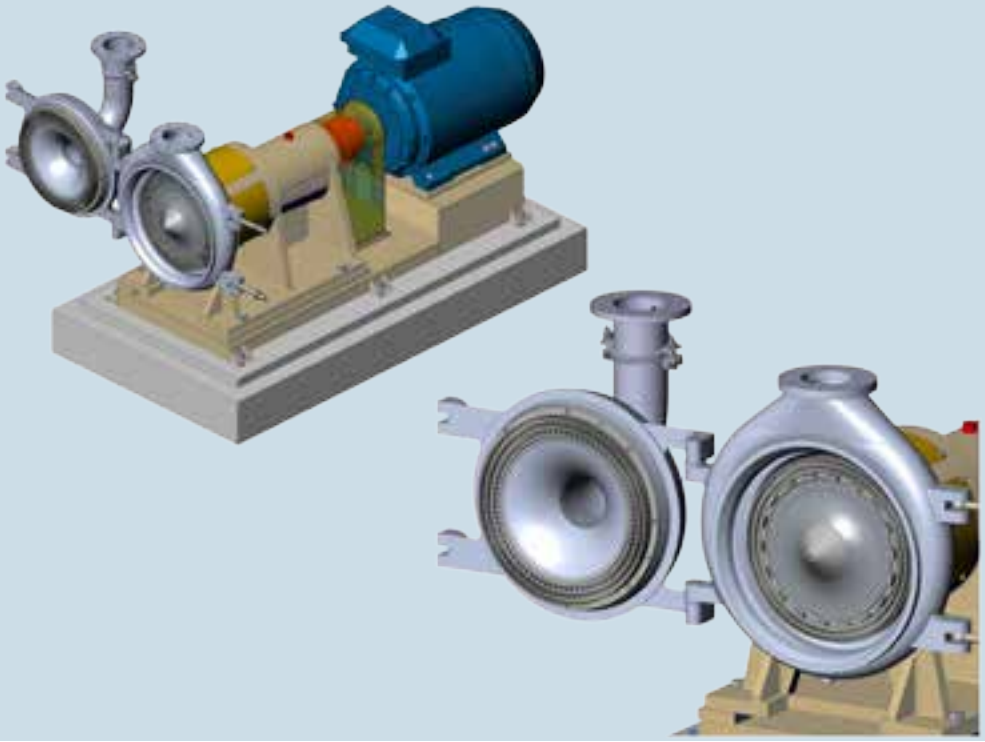
In bleaching systems, dispergers are used for intense mixing of the bleaching agents with the fibers.

Bleaching improves the optical characteristics of the stock. The brightness is increased with the penetration of chemical additives by bleaching the fibers and colour stripping as well as moving the colour spectrum.

COMERTEK, offers high and medium consistency bleaching systems for reductive or/and peroxide stages. All bleaching systems include efficient washing equipment for providing clean pulp to the paper machine.

Benefits of COMERTEK high-consistency bleaching systems for recycled fiber pulps:

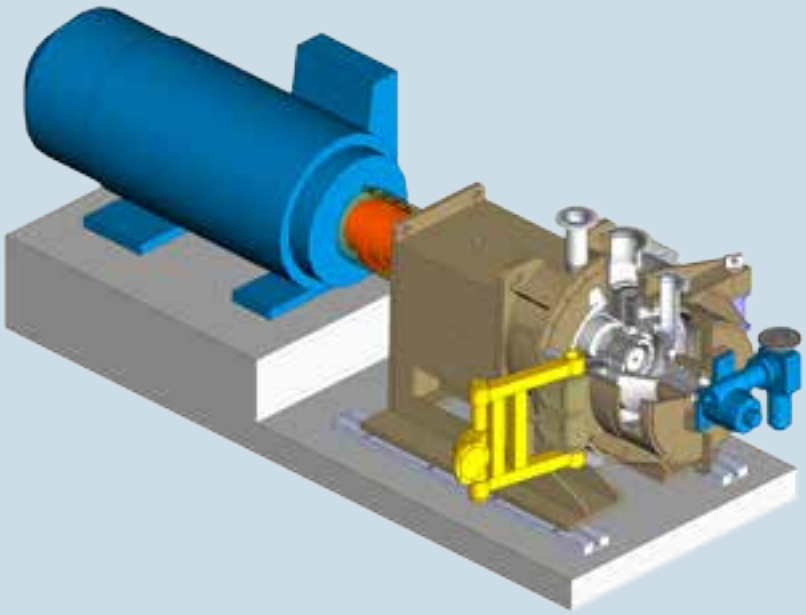
- Highest brightness for high-quality papers
- Lowest chemical costs
- Preservation of optical fiber properties (opacity, scattering,..)
- All Tower size is available, with conical bottom shape and one/two pipes system dilution
- Oxidative and Reductive stages to improvement optical property



Deflaker **DA**

In a stock preparation system, deflakers have the purpose to shred the flakes, still present in the fibrous suspensions and to free the single fibres without cutting or deteriorating them. The main application of such a machine refers to treatment of pulp or wet-strengthened papers. The deflaking effect is achieved by mechanical stress and high hydro-dynamic cutting force, due to the remarkable difference of speed between rotor and stator.

Model	Production	Installed Power
Size	MTD	kW/hp
D1A	50	55-75/70-100
D2A	100	132-160/175-200

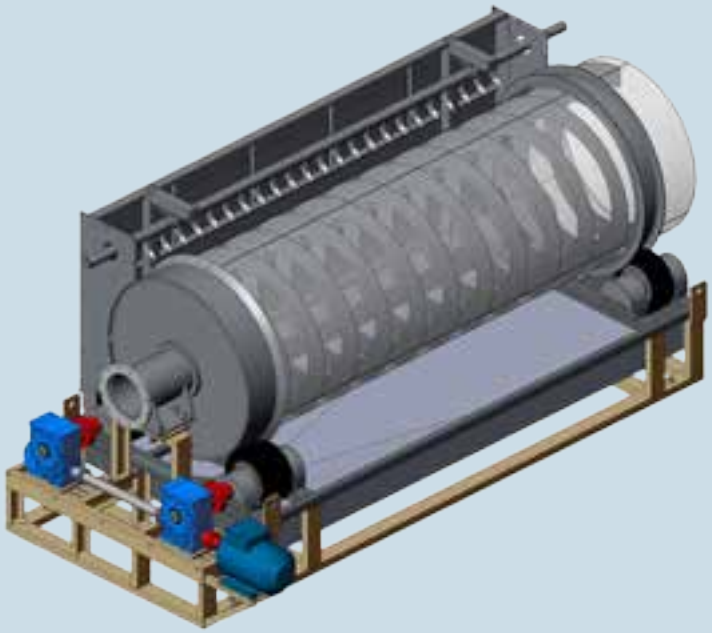


Refiner **CDDR**

Double Disc Refiners are generally used in the mechanical treatment of fibers, having the aim to imprint quality features to Tissue Paper.
Double Disc Refiners operate to enhance the strength, bonding and burst factors of the stock types, as well as for different applications.
Double Disc Refiners can be either used for Virgin pulp lines or for Brown.
In stock preparation for paper production, double disc Refiner CDDR is suitable to refine all fibres suspensions, which can be pumped at a min. consistency of 3,0 up to a max consistency of 6,0 %.

The stock is fed into refiner between a rotating and static disc. A high hydrodynamic activity forces fibrillation of the external part of the fibers. This process improves the chemical and physical bonding among fibers.
The refining blades are built in order to obtain an optimum exchange of kneading between rotor and stator.
This allows the forming of a thin layer of kneading between the blades and ensures an extremely uniform working of the fibers.
The degree of refining is influenced by the distance between the disks of the stator and the rotor.
This distance can be slightly varied by an electromechanical or manual adjustment device. The power absorption of the main motor varies according to the distance between the disks and according to the variation of the net specific refining energy. Therefore the power absorption of the motor can be used as a method to adjust the wished type of refining.

Model	Production	Installed Power
Size	MTD	kW/hp
CDDR1 - 18”	20 - 40	250/350
CDDR1 - 20”	20 - 60	250/350
CDDR2 - 24”	30 - 75	450/600
CDDR2 - 26”	30 - 100	450/600
CDDR3 - 30”	50 - 130	315 to 800/450 to 1100
CDDR3 - 32”	50 - 150	315 to 800/450 to 1100
CDDR3 - 34”	50 - 170	315 to 800/450 to 1100



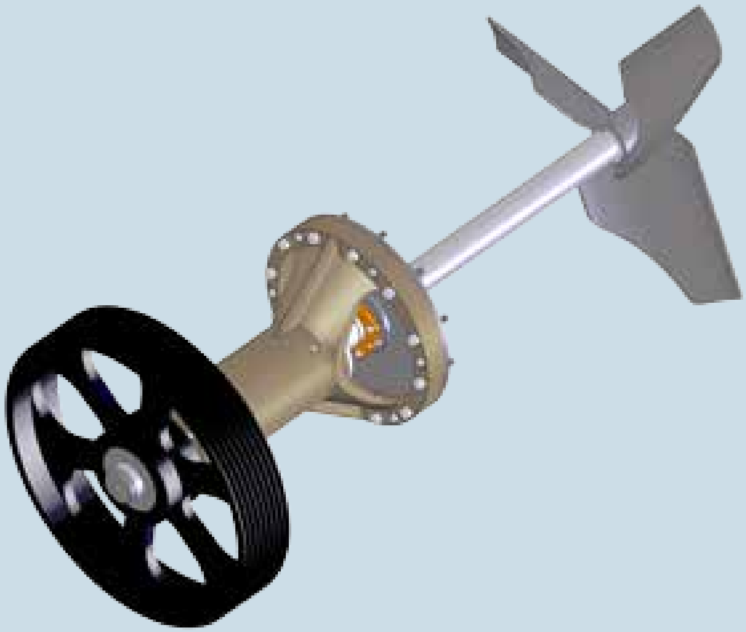
Trommel **AR**

The reject stream coming from the detrasher is treated into a Trommel (drum) where plastic and other contaminants are removed without degradation and then discharged and sent to the reject handling system. The accepted stock/water goes directly into the pulper.

The reject to be dewatered is fed by one side internally to a rotating drum and carried across the entire surface by an internal helicoidal flight procedure until the final discharge as dewatered reject.

The water is collected in a pan and discharged through a flanged connection.

Model	Installed Power
Size	kW/hp
A2R	5,5/7.5
A3R	7,5/10



Agitator **ACM**

The quality of the paper also depends on a good stock mixing. The design of our chests, with highly inclined bottom and our agitators allow to achieve a perfectly dispersed and homogeneous stock with the lowest energy consumption.

The agitators have adjustable pitch propellers in order to optimize the mixing according to the process operating characteristics, stock, consistencies, capacities and energy consumption.

All working parts such as bearings, shafts, propellers have been designed for a long trouble-free service.

Model	Chest Volume	Installed Power
Size	m3	kW/hp
ACM 750	10 - 60	11 - 22/15 - 30
ACM 1000	70 - 120	22 - 37/30 - 50
ACM 1250	150 - 250	37 - 55/50 - 70
ACM 1500	300 - 500	55 - 90/70 - 125

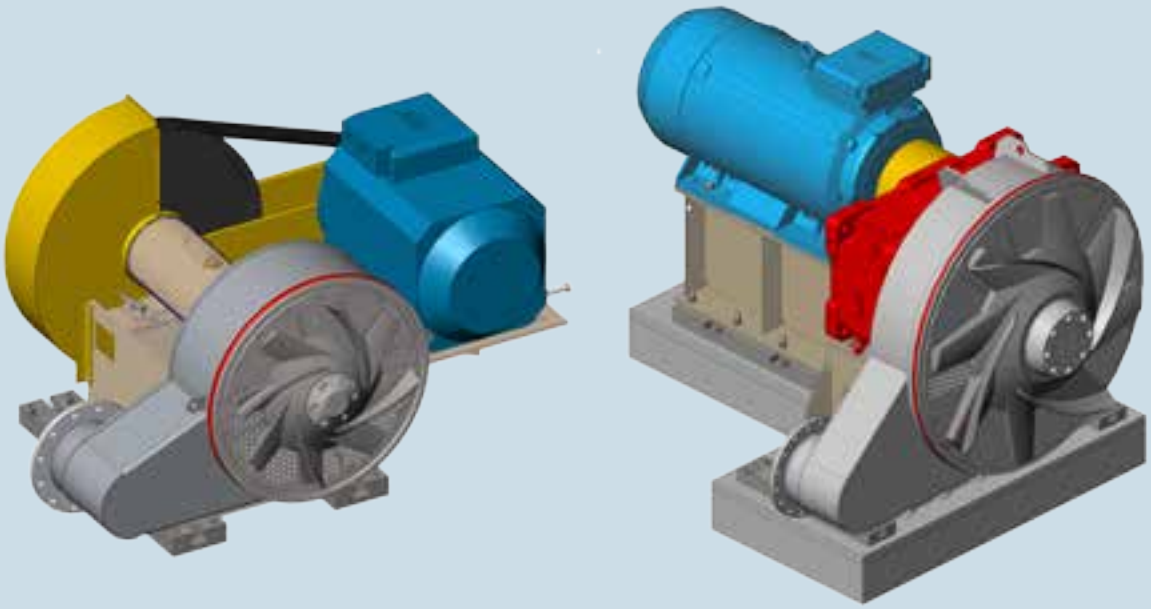
Cyberclean **DPS**

Comertek Cyberclean is used in different kind of applications. It's a more sophisticated and efficient system:
it includes two separated stages of cleaners. The first stage cleaners (usually 4 units, on the basis of inlet flow rate) run at 3,0 - 4,0% consistency and are provided with manifold discharge connection.

The stock is diluted down to 1,5 - 2,0% consistency and sent through a small pump to a secondary cleaners stage, with automatic junk-trap. This system is recommended for removing not only metallic rejects but also and mostly sand.

Thanks to this stage, nearly the total elimination of sand from the stock shall be achieved.
This protects the following screens, preventing any damage to the screen baskets.

Model	Production	System Flow Rate
Size	MTD	lpm
DPS 20	115	2000
DPS 40	230	4000
DPS 60	345	6000
DPS 80	460	8000
DPS 100	576	10000



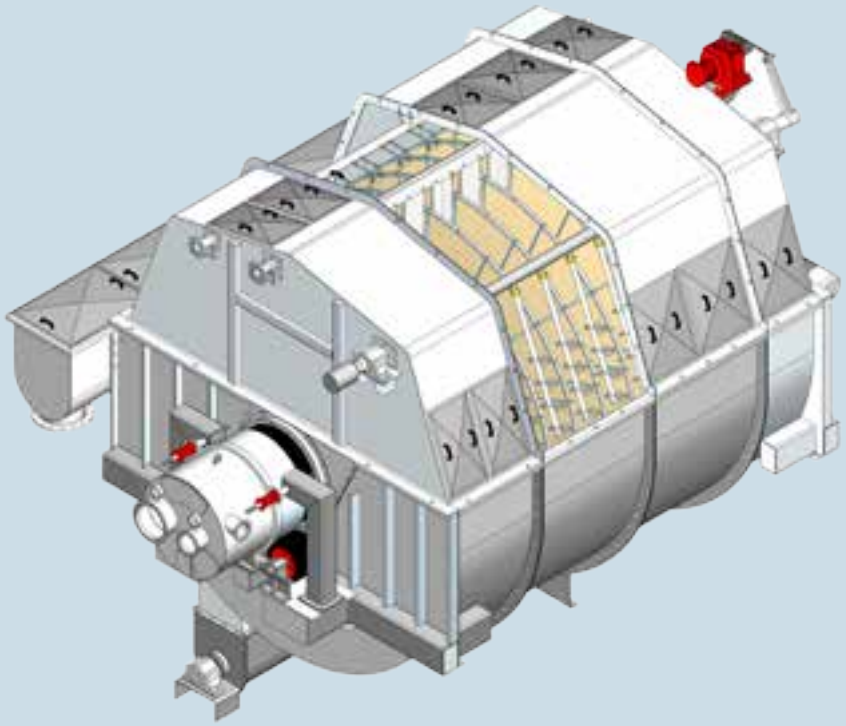
Under Machine Pulper **PRS**

Machinery disintegrating paper trimmings as a result of breaks on the paper machine. The paper is mixed with water in the pulper vat to form a suitable paper pulp to be returned to the papermaking operation.

Comertek horizontal pulpers have been designed to slush different kinds of machine broke such as trim cut in wire section, paper web, trimmings (reel/winder). The coated broke must have a separate treatment.
Pulpers are provided with one or two rotor units, depending mainly on the width of the paper machine.
It processes stock consistencies between 3,0% and 6,0%.

The discharge from the pulper occurs through an extraction perforated plate.
They are completely constructed in stainless steel excepted the vat external braces which are of mild steel, suitably coated.

Model	Production	Installed Power
Size	MTD	kW/hp
PRS 650/1	150	90/125
PRS 850/1	214	90-110/125-150
PRS 1050/1	282	110-250/150-350
PRS 1250/1	402	450/600
PRS 1600/1	500	630/850



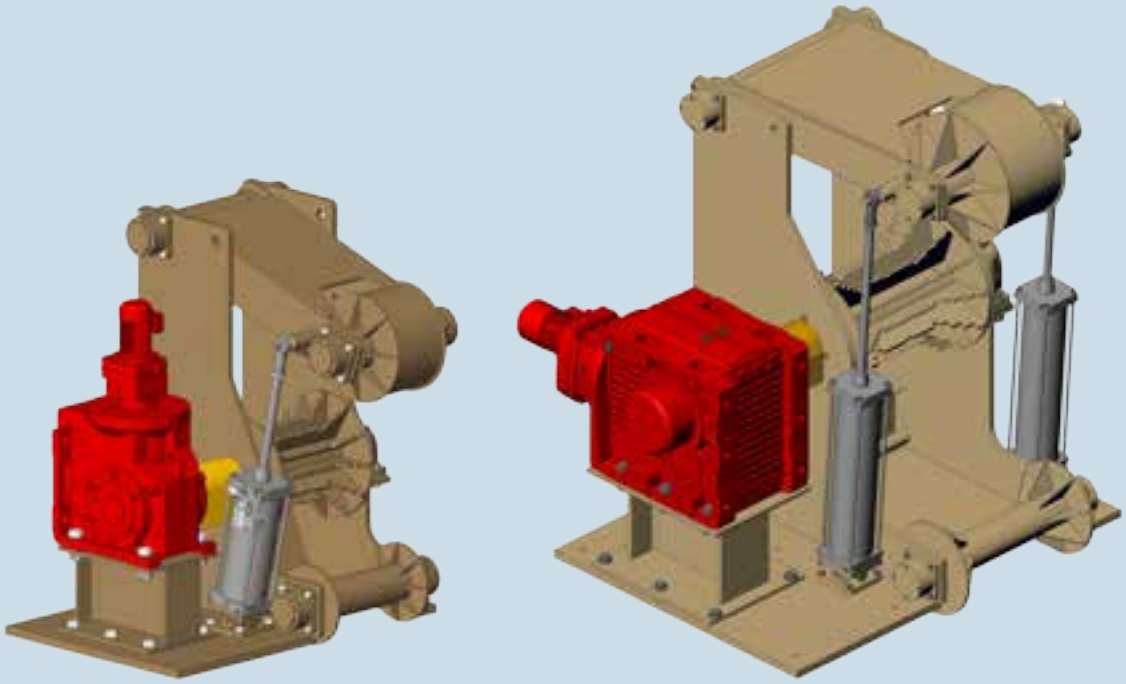
Disc Filter **DF**

The design of Comer Disc Filter is based on several new technology principles which give excellent performances and compact design with building high requirements. The filtrate valve is connected to a barometric drop leg which generates the required vacuum.
The disc filter is mainly used for two different applications: dewatering and white water cleaning (saveall).

Disc filters are used in two applications:

- Save-all & Save-all/Broke thickening
  - ø Filtering paper machine white water, saving fibers and cleaning water
    - Fibers are sent back to the paper machine
    - Water can be used for showers, for dilution or sent to water treatment
- Dewatering (Thickening)
  - ø Thickening stock, normally between 0,3-1,6% to 10%
    - For storage towers
    - Feeding presses or other equipment

Model	Size	FD 3800/V	FD 5200/V
Diameter	mm	3800	5200
Disc/Area	m2	20,5	38.9
Cloudy water	ppm	250 - 600	250 - 600
Clear water	ppm	80 - 200	80 - 200
Super clear water	ppm	30 - 50	30- 50



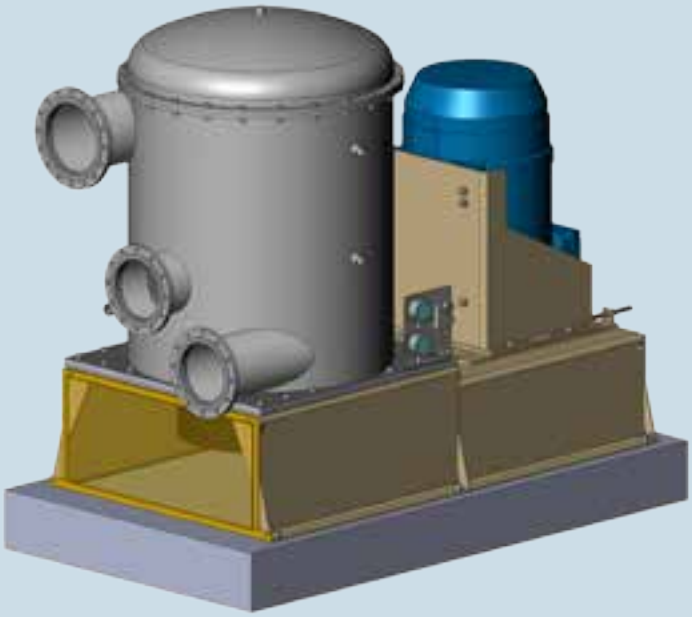
Ragger **RAG**

The Ragger equipment along with a junk remover, completes a low consistency continuous pulper in the detrashing activity. It is a mechanical device situated as an accessory above a pulper vat to remove contaminants coming from slushing waste paper furnishes.

It consists in a heavy wheel and a rope suspended into the pulper vat. The Ragger utilizes the wires that bind the waste paper bales and the movement of the stock inside the pulper to form a continuos wire-reinforced rope. The control of the heavy wheel is by a pneumatic cylinder that permits a controlled withdrawal of all spinning contaminants.

A guillotine cutter for rope disposal is also part of the system; it is located close to the ragger to cut the rope into smaller pieces.

Model	Installed Power
Size	kW
RAG-1	0.75/1
RAG-2	1.5/2



Fractionator **CF**

The Fractionator CF is an equipmet that separates various lenghts (short, medium an long) fibers in a stock pulp.

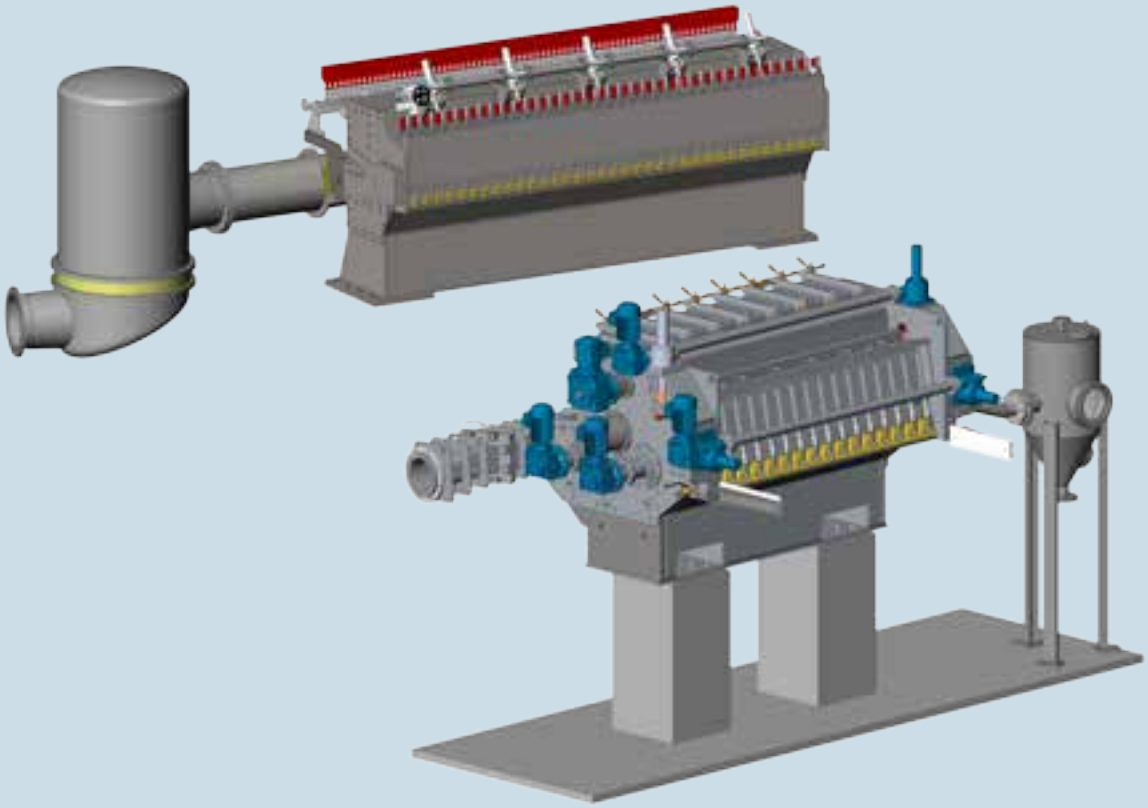
If performs the key function in OCC plants, where fibers separation is more crucial for end production result.

The fractionator is also commonly used in primary fiber processing to determine the size of the long fraction pulp in ground wood.

Model	Production	Installed Power
Size	MTD	kW/hp
CF 5	up to 170 *	90/125
CF10	up to 350 *	160/200

*= on the basis of furnish, consistency and type of basket

COMER TEK pulp and paper equipment



Headboxes

The deep knowledge about hydraulic and roll-type headboxes and our know-how on the production of the paper, in all these years, led to a design that offers a jet free of flakes and contrails, with a uniform basis weight profile across the full machine width.

Comertek manufactures distributor rolls type headboxes up to 6m (240“ pond width) with or without defoamer plate for overflow. Comertek headboxes correspond to a specific project of the client, based on the actual needs of the customer himself.

All finishing and methods of manufacture applied are special ones, reaching tolerances and surface finishing of high precision.

- Rectified rollbox
- Hydraulic Headbox
- Crescent Former
- Dilution profiling Headbox

COMERTEK
pulp and paper equipment

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