

BASIC ORGANIC - INORGANIC CHEMICALS

PRODUCT	PACKAGING	
Acetic Acid Glacial	30 KG	Jer
Alumunium Sulphate (Tawas)	50 KG	Bag
Ammonium Chloride	25 KG	Bag
Calcium Hypochlorite (KAPORIT)	15 KG	Peal
Caustic Soda	25 KG / 12 MT	Bag/Tank
Citric Acid	25 KG	Bag
Ferric Chloride	50 KG	Bag
Fertilizer NPK	50 KG	Bag
Formic Acid	35 KG	Jer
Hydrochloric Acid (HCL)	35 KG / 12 MT	Jer/Tank
Hydrogen Peroxide (H2O2)	35 KG / 1 MT	Jer/Tank
Nitric Acid	35 KG	Jer
PAC Powder/Liquid	20 KG / 10 MT	Jer/Tank
Phosphoric Acid	35 KG	Jer
Potassium Hydroxide	25 KG	Bag
Soda Ash	50 KG	Bag
Sodium Bicarbonate	25 KG	Bag
Sodium Hypochlorite	35 KG	Jer
Sodium Metabisulphite	25 KG	Bag
Sodium Sulphate Anhydrous	50 KG	Bag
Sodium Sulphide Flake	25 KG	Bag
Sodium Tripolyphosphate	25 KG	Bag
Sulphuric Acid	35 KG / 10 MT	Jer/Tank
Talc Powder	25 KG	Bag
TCCA	50 KG	Drum
Urea	25 KG	Bag

INDUSTRIAL GAS

PRODUCT	PACKAGING	
LIN: Liquid Nitrogen	-	BULK
LOX: Liquid Oxygen	-	BULK
LAR: Liquid Argon	-	BULK

TEXTILE CHEMICALS

SCOURING & WETTING AGENT	
NOIGEN	Series for Scouring and wetting agent for all fibers
DAISURF	Series for Wetting agent for all fibers
CHELATING AGENT	
SIZOL	Series for Chelating agents and cleaning machine agents
DYING AGENT	
AMILADIN	Series for concentrate leveling agent for dyeing
COLOURFINE	Series for Dyeing Assistance Series, including acid for neutralizing agent
UNIONSALT	Series for Anti-precipitating agent for acrylic/wool and anti back staining agent
COLOURSOL	Series for Covering type leveling agent for polyester with excellent dispersing ability, useful for re-dyeing or de-coloring process for unlevelled substrates
SOFTENING AGENT (SILICONE)	
SOFT SILICONE	Series for Amino silicone softener for woven fabric, knits and yarn which non yellowish, good to acid, alkali, inorganic salt, fixing agent in room temperature, good stability in high temperature
SOFTENING AGENT (NON-SILICONE)	
TAFFULON	Series for softening and lubricating agents
FINESOFT	Series for Softening agent for celluloses and blends
OFT WA	Series for Water absorbent nonionic softening agent for fibers
GINSOFT	Series for Softener for cotton, cotton blended, rayon, viscous. Non yellowing, compatible with other resin finishing, increase tearing strength
LUBRICATING AGENT	
LUSTER	Softening and lubricating agent for synthetic blended yarn and natural

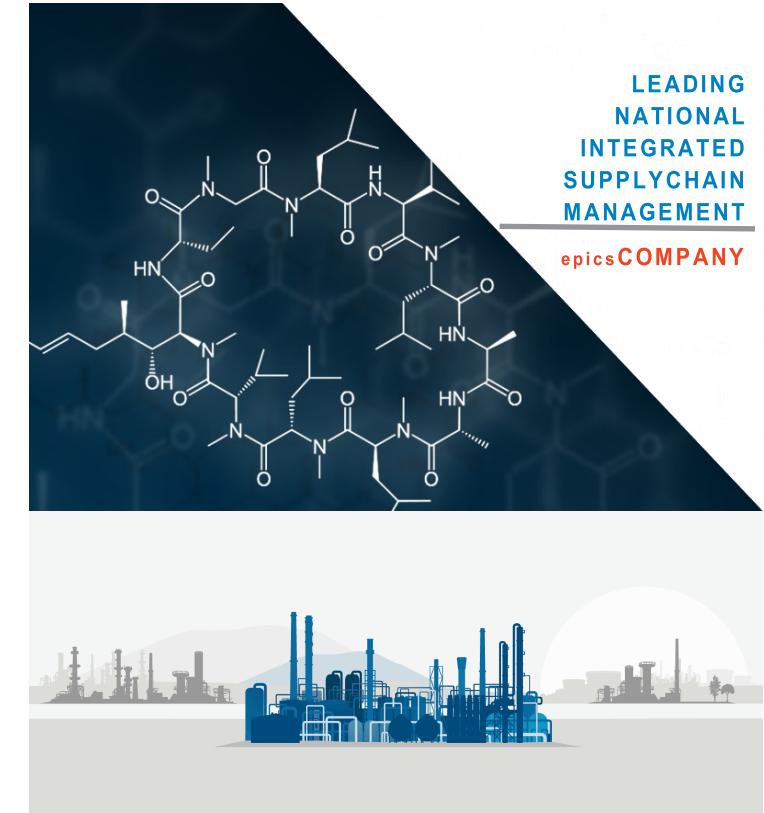
SOAPING AGENT (RC)	
AMILADIN	Series for Soaping agent for various fiber
TRIPOL	Series for Low foaming soaping agent for reactive dyes
MONOGEN	Series for Soaping agent for reactive dyes
SPECIALTY APPLICATION	
DK FIX	Series for Fixing agent for direct and reactive dyes
SILKEROL	Series for Wetting agent for alkali-weight reducing or mercerizing
ELTEX	Resin and Binders Series
REPITOL	Series for Emulsifier for emulsion printing with benefits color value-up, easy wash-off, stable viscosity and high resistance to chemicals
PYROGUARD	Series for Flamer retardant
ELENON	Series for Antistatic agent for synthetic fibers and blends
ELASTRON	Series for Catalyst for Elastron series and Elasfinish series
DAISURF	Series for special Emulsifier for silicone oil
COLOURFINE	Series for Anti crease mark agent for cotton, synthetic fabrics and
AMIKNOT	Series for Softening and knot strengthen agent for filament
AMISOFT	Series for Softening agent for filaments

FOOD ADDITIVES

SWEETENERS & FILLERS	
MALTODEXTRIN	Polysaccharide produced from starch by partial hydrolysis that is used as a food additive.
MALTITOL	Sugar alcohol (a polyol) used as a sugar substitute. It has 75-90% of the sweetness of sucrose (table sugar) and nearly identical properties
DEXTROSE	Crystalline glucose produced from starch
GLUCOSE	Confectionery syrup made from the hydrolysis of starch
FRUCTOSE	Fruit sugar, a simple ketonic monosaccharide found in many plants
SORBITOL	Glucitol is a sugar alcohol with a sweet taste which the human body metabolizes slowly
STARCHES	Polymeric carbohydrate consisting of a large number of glucose units joined by glycosidic bonds
BINDER & THICKENING AGENT	
CMC	Viscosity modifier or thickener, to help stabilize emulsion in various products
GUM XANTHAN	Polysaccharide used as food additive for thickening purposes

WATER SOLUTIONS

THERMAL DESALINATION	
CRESTOPRO T-Series	Microbiological, Scale and Corrosion inhibition; Antifoam; and Cleaners for applications in thermal desalination application
REVERSE OSMOSIS (RO)	
CRESTOPRO R-Series	
CRESTOPRO R-Series	Microbiological, scale and corrosion inhibition; Antifoam/Defoamer; Cleaners for application in membranes operations (MF, UF, NF, RO)
BOILER TREATMENT	
Boiler Series	Alkanity builder; condensate line protection; multifunctional treatment; oxygen scavenger; microbiological, scale and corrosion inhibition; sludge conditioner for Boiler application
COOLING WATER TREATMENT	
Cooling Series	Microbiological, scale and corrosion inhibition for Cooling application
CRESTOPRO Tablets	CrestoPro C180 is a highly effective, dual-active microbicide for biofouling and algae control in a single ready to use tablets; especially developed for applications to cooling towers of size greater than 200T recirculation tonnage CrestoPro C181 is a convenient to use tablet form of biocide to inhibit bacteria, yeast, fungi, and algae growth in air conditioning and refrigeration unit drain pans to avoid microbial slime from forming and
SUGAR MILLS	
Sugar Series	Microbiological, scale, and corrosion inhibition for the Sugar industry
OTHER SUPPORTING	
Chemical Cleaners	Industrial detergents, sanitizer, descalers, and many more
Antifoam & Defoamers	Controlling unwanted foaming that may disrupt production process
Biocides & Disinfectants	Oxidizing and non-oxidizing biocides for optimized operations
Coagulants & Floculants	Aluminum and ferrous based coagulants, anionic/kationic/honionic polymers for clarification operations



Next Generation
Distribution

Improve your supply-chain
with the rightfit Business Partner

CHEMICALS & GAS

Next Generation Distribution

BASIC CHEM

Our basic organic and inorganic chemicals are used as process chemicals, additives and fillers in the industrial manufacturing operations

SPECIALTY CHEM

Our specialty chemicals range supports the water treatment, textile, food & beverages, personal care, and coating sectors

INDUTRIAL GAS

We are currently working with the nation's largest source of industrial gas to supply to the metal, ceramics & glass, food & beverage and welding sectors



Business on the go

Panca Kusuma is thriving fast forward fueled by a team of energetic, passionate, and intelligent talents that will stop at nothing short of the best. They are pushing the extend of customers relationship management, business management and development, logistics and quality management, service and project management.

Be a part of our wonderful network — together we are moving forward to create value in the national industrial landscape



Our services ranges from process & productivity improvement projects, technical projects, technical consultation & support, and logistics services. Our customers can be rest assured that they have the right-fit business partner to support their businesses with the highest level of service experience. We are bringing industry experts to support our customers in improving their productivity to further extend value to our customers.

Some of our recent and upcoming projects are:

- Quality Improvement —Textile Mill
- Water Treatment —Textile Mill
- Evaporation Optimization — Sugar Mill
- SWD Optimization — Oil & Gas Sector



Distribution innovation

Panca Kusuma is integrating commercial and logistics like never before. Supported by our newly formed Bonded Distribution entity, we are changing the distribution framework for imported materials.



Effective Sourcing for Business Success

Panca Kusuma distributes basic organic-inorganic chemicals & minerals, specialty chemicals, and industrial gasses to multiple industries in Indonesia. Leveraging on over 100 sources serving a network of more than 500 customers we continue to add value to the national industrial sector.

Our promise is to deliver only the right deal, right process, right people, right infrastructure & technology, and increase our presence nationally. Our commitment to continuous learning and growth will be the driving force that enhance and expand our products, services, and industrial competencies.

We vision ourselves as a Leading National Integrated Supply Chain Management Company. Thus, we must become the preferred and trusted business partner with excellent infrastructures and services.



We are extremely proud of our team: talented recruits, experienced staff members, and progressive management team.

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Achieve optimum distillate production with

CrestoPro T

ANTIFOAM	
CRESTO PRO T-635	Non-silicone based antifoam, incorporating a wetting agent to help reduce the tendency of hot spots forming on MED units

ANTISCALANT	
CRESTO PRO T-497	Excellent control of carbonate, sulfate, and magnesium hydroxide scales with some dispersant activity against foulants suspended in the brine film, helping to reduce cleaning frequencies. Provide better control of demister pad fouling. Not affected by chlorine or other oxidizing biocides under normal conditions of use and thermally stable up to temperature 200°C

CRESTO PRO T-499	Exhibit all functionality of CrestoPro T-497, added with more excellent dispersancy activity against foulants suspended in the brine film and showing high resilience and performance in high turbidity seawater
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Designed permeate quality and quantity with CrestoPro R

ANTISCALANT	
CRESTO PRO R-430	Highly effective in controlling the deposition of inorganic scales (carbonates & sulfates) for cost effective operations. Compatible with polymeric coagulant aids, chlorines, and sodium metabisulfite. Also compatible with all major membranes and not affected by chlorine or other oxidizing biocides under normal condition of use

CRESTO PRO R-493	Exhibit all the functionality of CrestoPro R-430, added with some dispersant properties, moderate silica scale inhibition and iron tolerant. Also compatible with all major membranes and not affected by chlorine or other oxidizing biocides under normal condition of use
CRESTO PRO R-494	Exhibit all the functionality of CrestoPro R-493, added with more excellent dispersant properties, excellent silica scale inhibition (up to 400 mg/l), and boosted iron tolerance to both soluble and insoluble iron. Also compatible with all major membranes and not affected by chlorine or other oxidizing biocides under normal condition of use

MICROBIAL CONTROL	
CRESTO PRO R-145	A quickkill microbial control solution that easily hydrolyzes under both acidic and alkaline conditions

RO CLEANERS	
CRESTO PRO R800	RO acidic (low pH) formulated cleaner that is highly effective in removing metal hydroxides, calcium carbonate and other similar scales forming on membranes surfaces. Compatible to polyamide, polysulphone, and thin film composite membrane. Has high cleaning effectiveness at ambient temperature, even from 15°C up to maximum temperature recommended by membrane manufacturer. Contains no surfactants, thus can be easily rinsed away, and fully compatible with offline disinfectants such as DBNPA.

CRESTO PRO R820	RO alkaline (high pH) formulated cleaner that is highly effective in removing organics, silts, and other particulate from all membranes surface. Compatible to polyamide, polysulphone, and thin film composite membrane. Has high cleaning effectiveness at ambient temperature, even from 15°C up to maximum temperature recommended by membrane manufacturer. Contains no surfactants, thus can be easily rinsed away. Contain pH buffer, detergent builder, and chelating agents. Not compatible with offline disinfectants such as DBNPA, will deactivate the actives of DBNPA, reducing its biocidal efficacy
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Technology suited for today's tough environment CrestoPro O & G

ANTISCALANT	
CRESTO PRO O-486	Superior scale inhibition required by oil field service provider for squeeze and topside applications even in the most challenging/harsh situation. Excellent compatibility even to high calcium TDS brine system, excellent control of all calcium sulfate/carbonate scales, superior control of barium sulfate scales, good resilience to iron, added dispersancy capability.

MICROBIAL CONTROL	
CRESTO PRO O172	Highly effective and broad spectrum non-oxidizing microbicide and biopispersant. Kills bacteria, algae, fungus, and even legionella pneumophila. Provides excellent biofilm control and shows compatibility to oxidizers, and anionic additives.



MOST TECHNICALLY SOPHISTICATED WATER SOLUTION

CrestoGuard

ANTISCALANT	
CRESTOGUARD 412	HEDP blend phosphonate scale inhibitor that provides good calcium carbonate scale control to industrial water treatment formulations. For applications with low to moderate hardness, LSI between +0.5 ~ +2.0; some dispersancy property for iron oxide, with mild steel corrosion protection. Common component for household Boiler and Cooling solutions

CRESTOGUARD 410	PBTC Blend phosphonate scale inhibitor that provides calcium carbonate and iron oxide deposit control. Moderate calcium carbonate, calcium sulfate, iron oxide, dispersancy; with moderate zinc and phosphate stabilization when coupled with polymeric dispersants; moderate steel corrosion protection. Common component for household Boiler and Cooling solutions
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CRESTOGUARD 414	ATMP Blend phosphonate scale inhibitor meant for severe high LSI systems. Used widely in industry as sequestering agent and calcium carbonate scale inhibition for industrial water treatment at high alkaline conditions. Moderate calcium carbonate scale inhibition and calcium compatibility with LSI approaching +3.0, moderate control when operating in high ORP and pH conditions, with some iron oxide dispersancy, mild to moderate steel corrosion protection. Common component for household RO solutions
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CRESTOGUARD 450	Specialty treated polymeric antiscalant base with excellent dispersancy properties to suspend insoluble particulate matter. When added to formulation, boost effectiveness against sulfate and carbonate scales. Not affected by chlorine or other oxidizing biocides. For top performing professional blend boiler, industrial, and cleaning solutions
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CRESTOGUARD 452	Specialty treated polymeric antiscalant base to provide greater flexibility and better performance in developing multiple antiscalant programs. Not affected by chlorine or other oxidizing biocides. For top performing professional blend boiler, food plants, or other industrial, and cleaning solutions
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CRESTOGUARD 456	Specialty treated polymeric antiscalant base targeted to provide greater flexibility in developing superior phosphonate corrosion control programs for cooling water, process water, and other applications. Provide the superior phosphate and calcium carbonate inhibition/dispersancy, calcium phosphonate and zinc stabilization, Iron oxide dispersancy, zinc stabilization, and superior silica scale inhibition (above 350 ppm). For top performing professional blend Boiler, Cooling and other Industrial solutions
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CRESTOGUARD 459/510	Silica inhibitor
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CRESTOGUARD 550	Economical P-free, N-free, calcium carbonate antiscalant for high hardness and high temperature system. Cost effective for moderate to severe conditions (LSI beyond 2.0). Exhibit threshold inhibition and crystal modification functions, outperform all phosphonates programs
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CRESTOGUARD 551	The best effective P-free, N-free, calcium carbonate antiscalant for severe hardness and high temperature system. Cost effective for severe conditions (LSI 3.0). Exhibit best threshold inhibition and crystal modification functions, outperform all phosphonates programs
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CRESTOGUARD 556	An alternative P-free, N-free, calcium carbonate antiscalant for low and moderate LSI conditions. Exhibit moderate calcium carbonate scale inhibition and crystal modification with zinc stabilization properties to give better corrosion control. Environmentally friendly solution having no phosphorous or heavy metals, making it ideal for all organic programs
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MICROBIAL CONTROL	
CRESTOGUARD 165	Concentrate form of a highly effective and broad spectrum non-oxidizing microbicide and biopispersant. Kills bacteria, algae, fungus, and even legionella pneumophila. Provides excellent biofilm control and shows compatibility to oxidizers, and anionic additives

CRESTO PRO C141	Highly effective, specialized algicide for use in industrial cooling and ornamental water systems. Particularly effective in combination with chlorine and bromine based oxidizing biocides, ensuring cost effective and prolonged protection against all strains of algae, even at low halogens level. Does not foam, and compatible with most scale and corrosion inhibitors and is not lost by adsorption onto organic material
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ANTICORROSION	
CRESTOGUARD 270	Industry standard yellow metal corrosion inhibitor easily formulated to prevent corrosion of copper and copper alloys. Compatible to most scale and corrosion inhibition agents

CRESTOGUARD 275	Best performing yellow metal corrosion inhibitor easily formulated to prevent corrosion of copper and copper alloys. Compatible to most scale and corrosion inhibition agents
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CRESTOGUARD 310	Corrosion inhibitor developed for use in acid pickling processes involving HCl. Provides formulator with the benefits of non-staining, high stability, and not degraded in acid recovery units.
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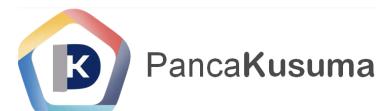
LEADING
NATIONAL
INTEGRATED
SUPPLYCHAIN
MANAGEMENT
epics COMPANY

CREATIVE RELIABLE TECHNOLOGY

WATER
SOLUTIONS

Improve your profitability with the
best Technology Partner

CREST WATERS





CREATIVE SOLUTIONS THAT DIFFERENTIATE

DESALINATION

CrestoPro T-Series aim for the most effective scale and foam control in both Multi Stage Flash (MSF) and Multi Effect Desalination (MED) thermal desalination plants. Solutions help the plants to operate at its optimum runlength and prevent unwanted shutdown of the plant for cleaning.

CrestoPro R-Series aim to control potential scale formation in membrane systems, thus helping them to operate at excellent recovery rates, and system cleaning for exhausted systems to help restore the membranes desalination systems and recover its designed recovery rate.

OIL - GAS - GEOTHERMAL

CrestoPro O-Series for Oil and Gas and for Geothermal, deliver some of the most dependable solutions in their respective application allowing superb water recovery compliant with environmental regulations and allowing safe and continuous operations without downtime.

CrestoPro G-Series controls a variety of scale issues from calcite at the production well end, to silica (sometimes up to 1.300 ppm) at the reinjection well end.

Water solutions at its best — together we will provide solutions to solve the most challenging water conditions to optimize operations



Our support starts from formulation, application guides, and consultations to optimize operations. Our customers can rest assured that they have the right-fit business partner to support their businesses with the highest level of service experience. We are bringing industry experts to support our customers in improving their productivity to further extend value to our customers.



Precision and convenience through our all-in-one multi-meter

INDUSTRIAL WATER TREATMENT

For the general industrial water treatment, **CrestoGuard Series** offer proven additives for formulators to tackle corrosion, scaling, mineral/microbiological fouling, and foaming to create solutions that minimize maintenance costs and prevent excessive downtime in boiler and cooling tower operations. Even facing the harshest situation (LSI levels of +3.0) we help formulators to deliver both conventional and non-P solutions in complying to strict regulatory standards.

In the sugar industry, customized CrestoGuard lines were developed and formulated to attack specific types of scales buildups to improve mills' operational runlength and de-

ANALYTICAL INSTRUMENTS

CrestoPro SP-700 is a handheld multi-meter that can measure 5 key water parameters simultaneously: pH, conductivity, temperature, ORP, and CrestoGuard DTEC; DTEC operates under proprietary signal algorithms for detection of presence of compatible CrestoGuard actives in a water system.

CrestoPro SP-910 combines fluorometer, colorimeter and turbidimeter in a single handheld device, empowering onsite team to be able to carryout water analysis of key parameters from orthophosphate, silica, iron, copper, molybdenum, DEHA, DTEC, and pH



**CREATIVE
RELIABLE
TECHNOLOGY**

At CREST, creative water treatment solutions are created every day. Water is an integral part of our life and affects industrial processes alike. CREST recognize that every process is different and requires a unique solution. To manage the economics of every solution, every element of the overall water treatment strategy is understood and carefully thought out before it is presented to the customers. CREST's team of experts strive to provide water treatment solutions that are sustainable and customized to customers' specific requirements in order to achieve maximum value and ultimate success.

CREST have more than a century rich of combined technical expertise solely in water treatment business. With strong focus in R&D to improve product quality and range to accommodate the forever changing market needs, applying stringent criteria in manufacturing partners selection, and aim for global reach, CREST is leading the way in water additives technology.

Panca Kusuma is the country distributor and agent for CREST's products covering the Indonesia region. We vision ourselves as the leading national integrated supply chain management company.



With a network of 100 sources and 500 customers, we strive to become the preferred and trusted business partner through our excellent infrastructures and services. We are extremely proud of our team: talented recruits, experienced staff members, and progressive management team.

1
RIGHT DEAL
FAIR VALUE

2
RIGHT PROCESS
EFFICIENT

3
RIGHT PEOPLE
CARING

4
RIGHT TECH
MODERN

5
NATIONAL
17 CITIES

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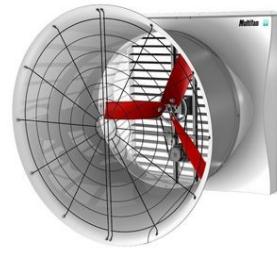
PIPES & FITTINGS



CHEMICAL TANKS



FAN CASINGS



PRESSURE VESSELS



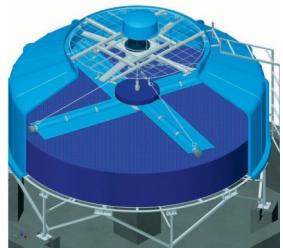
LORRY TANKS



WATER TANKS



COOLING TOWER



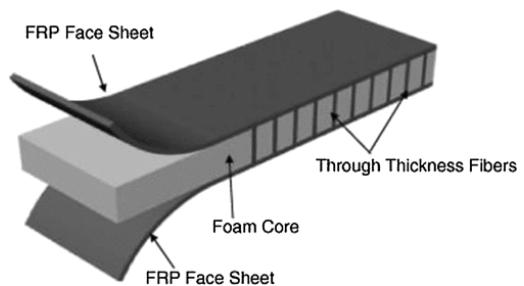
WATER PONDS



CUSTOM DESIGN



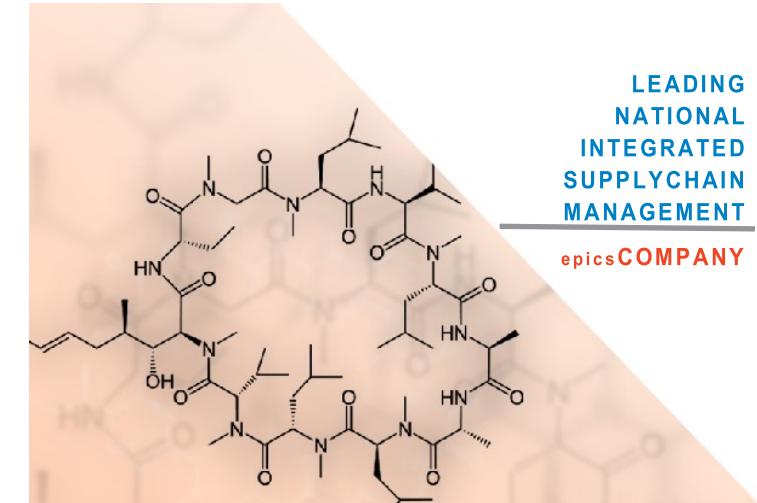
NEW DEVELOPMENT — SANDWICH PANEL



SILO STORAGE



POLLUTION CONTROL



Composite Materials

Improve your investments & operations with the right-fit **Business Partner**

FRP



PancaKusuma

FRP what is...

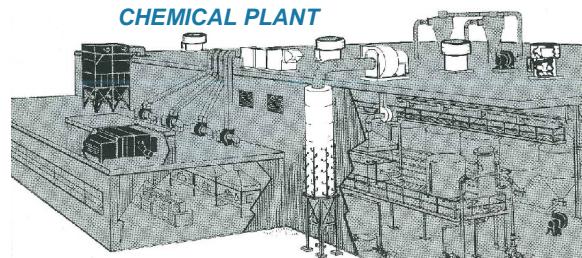
FRP — Fibre Reinforced Polymers is a composite material made of polymer matrix reinforced fibres (normally of glass—fiberglass). Polymers used in the process are normally of polyester, epoxy, and vinyl ester kind. The main benefit derived from FRP are it is both strong and light, practically corrosion free, offer design flexibility, and easily maintained/ repaired.

FILAMENT WINDING

We have two filament winding production lines: one pipes and the other for tanks. Our production line for pipes is capable of producing up to 60.000m (per annum) of high quality FRP pipes of multiple sizes. Concurrently, our production line for tanks are capable of producing high quality mass standardize tanks, and high quality customs sized (large) chemical tanks (up to 12m wide-diameter).

C/RT MOLDING

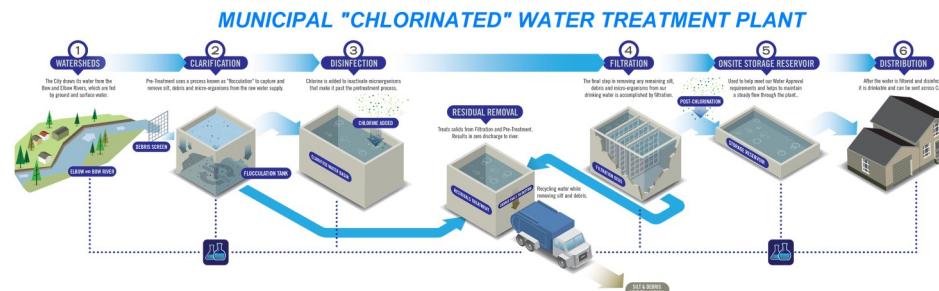
We are able to supply high quality customized FRP parts and equipment: casings, tubes, and customs shapes. Compressed and Resin Transfer molding process allows for precise tolerances with detailed shaping without compromising the products' final strength.



Be a part of our wonderful network — together we are adding value to the national industrial landscape



Our engagement can start as early as reviewing the technical drawing for projects requiring FRP composite materials. Our strong engineering and design team is capable to support even large EPC players engaged to large infrastructure and energy projects. Our production line is ISO Certified and apply the most stringent quality control procedures to ensure quality starting from the raw materials, production process, and final inspections. We are committed to deliver only high quality products to support your business investments.



Trusted Business Partner

Panca Kusuma assists industrial manufacturers, utility infrastructure sectors, and energy companies as early as their Engineering, Procurement and Construction (EPC) phase. Partnering with over 100 sources and serving a network of over 500 businesses we continue to add value to the national industrial sector.

Our promise is to deliver only the right deal, right process, right people, right infrastructure & technology, and increase our presence nationally. Our commitment to continuous learning and growth will be the driving force that enhance and expand our expertise and services.



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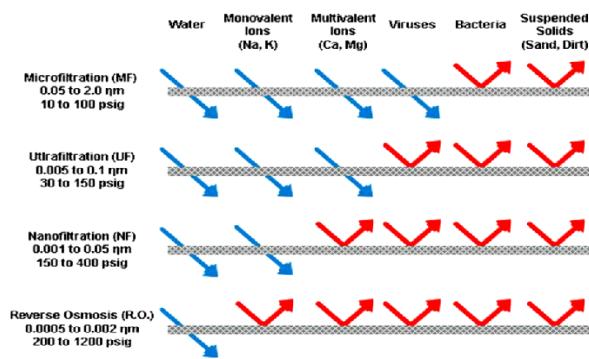
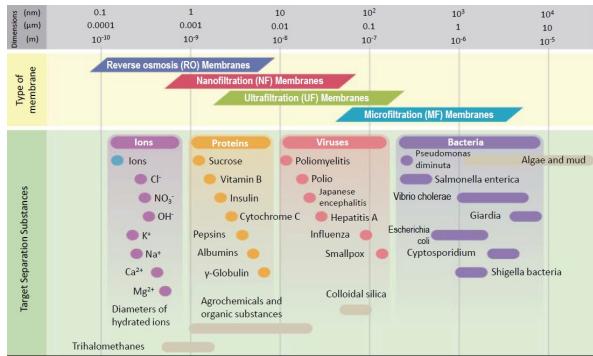
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PROCESS SEPARATIONS

DAIRY RO	Intended for daily CIP in the Dairy Industry
DAIRY NF	Intended for the separation of the divalent anions and/or organic molecules greater 200 Dalton from monovalent salts and lower molecular weight organic
DAIRY UF	Highest quality membrane innovation to deliver most reliable and consistent results
SuPRO	Polyethersulfone membrane with a 300K MWCO providing high flow and rejections with excellent tensile strength. Widely used for clarification in the sugar industry
SanRO	USP compliant and typically used in producing purified water in pharmaceutical, medical, biotechnology, food, beverage and semiconductor processes. Conform to FDA regulation (Title 21)
HYDRACoRe	Color removal series of sulfonated polyethersulfone-based-spiral-wound, crossflow elements. Can also be used for potable water
HYDRApro	For industrial application, whereby high fouling, high temperature, or chemically aggressive feed is present



UF MF

HYDRACap	Ultrafiltration using PES hollow fibers (0.025 μm pore size). The module fits a wide range of applications: ground water, pretreated surface water, and potable water. The low fouling hydrophilic structure enable to operate at high fluxes for long intervals
HYDRACap MAX	Ultrafiltration using PVDF TIPS hollow fibers (0.08 micron pore size). Suitable for wide range of applications: final treatment and pretreatment to RO and NF
HYDRAsub	Submerged modules with PVDF hollow fiber for MBR applications that produce high quality permeate water suitable for RO treatment. Drastically reduces footprint by eliminating the need for sedimentation tank and operation at higher MLSS



NANO FILTRATION

ESNA	Exhibit unparalleled performance at ultra low pressures. Ideal for softening applications and removal of pesticides and pathogens while providing 50-90% salt rejections.
NANO BW	High performance nanofiltration membranes ideal for low salinity surface or ground waters containing high molecular weight organics or pesticides.
NANO SW	Primarily used in the oil and gas industry with high performance ability to selectively remove sulfate, thereby reducing the risks of scaling and reservoir souring when seawater is injected into oil containing reservoirs in offshore oil productions.
HYDRACoRe	Color removal series of sulfonated polyethersulfone-based-spiral-wound, crossflow elements. Can also be used for potable water or industrial applications in which color reduction with minimal removal of dissolved salts.

REVERSE OSMOSIS

SWC	Membranes for desalination industry with improved productivity and salt rejections while reducing the environmental impact. Comes in range of formulations depending on the level of seawater salinity required
CPA	Membranes meeting industrial standards for critical high purity applications—from pharmaceutical to power industry. CPA lines of spiral wound RO membranes are available in variety of sizes and deliver the highest performance with the highest salt rejections rates
ESPA	Energy saving membranes for applications demanding high energy efficiency without compromising productivity and salt rejections
LFC	LFC2-LD from the LD technology innovative low fouling membranes combines the attributes of neutrally charged surface with hydrophilicity to achieve lowest organic colloidal fouling in the most demanding feed water conditions. Combining the attributes of neutral surface charge and hydrophilicity it provides significant reduction in fouling rates increasing the membrane's efficiency by restoring nominal performance after cleaning

LEADING NATIONAL INTEGRATED SUPPLYCHAIN MANAGEMENT
epics COMPANY

Integrated Membrane Solutions
Comprehensive membrane solutions to offer effective and low cost of ownership

Membrane Solutions

Improve your investments & operations with the right-fit **Business Partner**

MEMBRANES



PancaKusuma

Membranes what is...

Membranes — is a selective barrier; it allows some things to pass through but stops others. Such things may be molecules, ions, or other small particles. The degree of a membrane depends on the membranes pore size. Depending on their pore size, they can be classified as microfiltration (MF), ultrafiltration (UF), nanofiltration (NF), and reverse osmosis (RO) membranes. Membranes can also be of various thickness, with homogeneous or heterogeneous structure. Membranes can also be neutral or charged, and particle transport can be active or passive

MICROFILTRATION

Removes particles higher than 0,08-2 μm and operates within a range of 7-100 kPa. Removing residual suspended solids (SS) and bacteria in order to condition the water for effective pretreatment and disinfection for RO. Combined with bioreactor for bio-treatment then we will have Membrane Bioreactor (MBR)

ULTRAFILTRATION

Removes particles higher than 0,005-2 μm and operates within a range of 70-700kPa. Similar applications to microfiltration, ultrafiltration membranes are also used to remove dissolved compounds of high molecular weight, such as proteins and carbohydrates, in addition to viruses and some endotoxins.

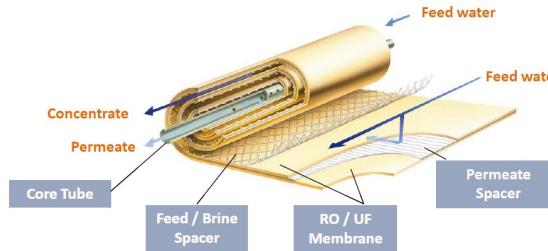
Be a part of our wonderful network — together we are adding value to the national industrial landscape



Our engagement can start as early as reviewing the technical drawing for water utility design.

We partner with some of the most prominent EPC (Engineering - Procurement - Construction) Companies to provide the best water solutions. Our projects range from residential, commercial, industrial, to large infrastructure facilities. Combined with our networks of professional industry's experts and our own distribution of chemicals for maintenance/operations, we are capable to provide a one stop solutions for your water needs.

For membrane solutions we recommend the use of Nitto - Hydranautics products because they provide the highest quality membranes and best support for all range of membranes requirements.

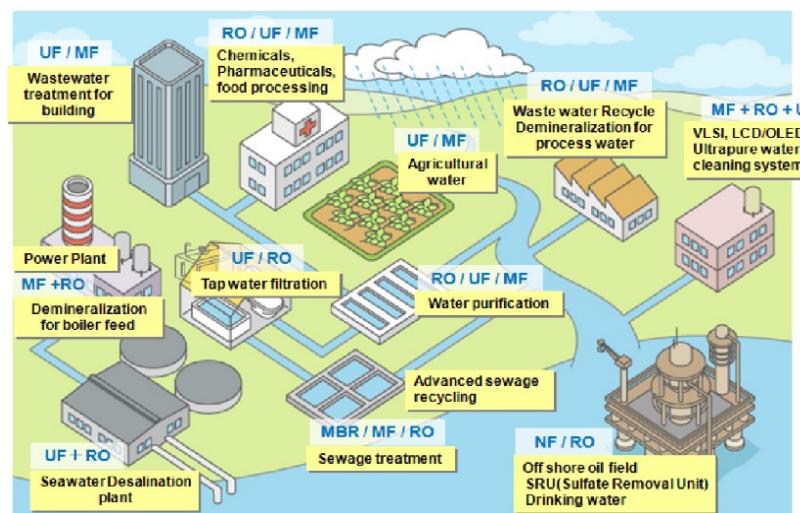


NANOFILTRATION

Also known as "loose" RO, it can reject particles smaller than 0,002 μm . Also used for the removal of selected dissolved constituents from wastewater, it is primarily developed as a membrane softening process which offers an alternative to chemical softening.

REVERSE OSMOSIS

Commonly used for desalination or the removal of dissolved constituents from wastewater remaining after advanced treatment with microfiltration. It excludes ions but requires high pressures to produce deionized water (850-7000 kPa).



Trusted Business Partner

Panca Kusuma assists industrial manufacturers, utility infrastructure sectors, and energy companies as early as their Engineering, Procurement and Construction (EPC) phase. Partnering with over 100 sources and serving a network of over 500 businesses we continue to add value to the national industrial sector.

Our promise is to deliver only the right deal, right process, right people, right infrastructure & technology, and increase our presence nationally. Our commitment to continuous learning and growth will be the driving force that enhance and expand our expertise and services.



We vision ourselves as Leading National Integrated Supply Chain Management Company. Thus, we must become the preferred and trusted business partner because of our excellent infrastructure and services.

We are extremely proud of our team: talented recruits, experienced staff members, and progressive management team.

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