N.K. INDUSTRIES

AN ISO 9001 : 2015 & CE CERTIFIED COMPANY

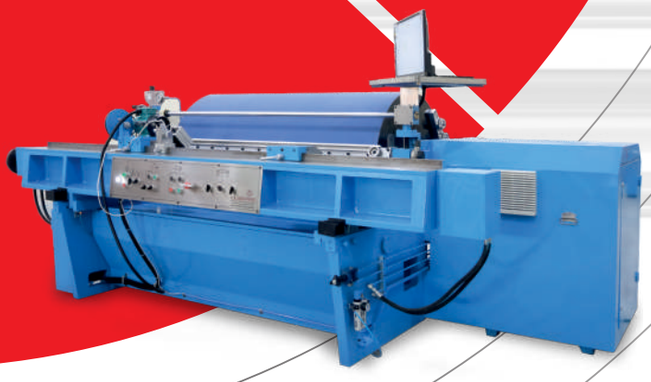
Mfrs. of : Roto Gravure Printing Cylinder Plant, Nickel, Copper, Chrome, De-Chrome, Degreasing, Cylinder Washing Machines, Chrome Polish & Proofing Machine



"Join us!
in shaping a **Future**
where your Success
is our commitment."







www.nkindustries.org

COMPANY PROFILE

In a World where innovation, precision, and excellence reign supreme, NK Industries stands as a beacon of technological advancement in Roto Gravure Printing Cylinder Machine manufacturing. We are your one-stop vendor for automated Roto Gravure machines and related products, including Proofing Machines, ETP Plants, Chromium Separators for air pollution control, and other essential accessories required in Roto Gravure Cylinder making units. With over 30 years of industry experience, we have continuously evolved, refining our machines to meet the ever-changing demands of technology. Our machines embody advanced technology, offering high efficiency, precision, easy operation, and low maintenance, making us the preferred choice for Roto Gravure Cylinder making solutions. At NK Industries, we don't merely produce Roto Gravure Cylinder making machines; we sculpt precision. Our unwavering commitment to quality and the use of cutting-edge technology ensures a transformative experience for your Roto Gravure Cylinder making processes, delivering unparalleled value for your investment. Guided by the visionary leadership and in-depth expertise of Mr. Naushad, we set pioneering benchmarks in Roto Gravure Cylinder making machine technology. Our mission is to forge trust, innovation, and precision in Roto Gravure Cylinder making, sculpting a future where excellence harmonizes with sustainability. We are dedicated to empowering industries with state-of-the-art solutions today for an expansive world of possibilities tomorrow. Step into the heart of perfection with NK Industries, where dreams are born in a brilliance like no other.

"NK Industries - weaving a fabric of innovation, precision, and unwavering commitment."





Muslim Kazmi **Naushad Khan**

Partner's Speech

"Welcome to NK Industries. For over 40 years, we've dedicated our lives to perfecting Roto Gravure technology machines. We didn't just build machines; we bled dedication and sweat to create Roto Gravure perfection machines.

"At NK Industries, it's more than business; it's about your satisfaction driving our pursuit of excellence. We're not just a company; we're a promise of innovation and trust. Our dedicated research and development team is committed to stay at the forefront of innovation.

"We're not just engineering machines; we're engineering relationships. Join us in shaping a future where your success is our commitment. NK Industries - where excellence meets trust. "This is what keeps us ahead of the competition.

NK Industries - weaving a fabric of innovation, precision, and unwavering commitment.
Your journey towards excellence begins here.

ADMIN BLOCK





Our Certificates





Wide Range
Roto Gravure Printing Cylinder
Making Machines

Roto Gravure Cylinder making Unit.

All our machines are with advanced technology, high efficiency, high precision, easy operation and low maintenance. Step into the heart of perfection, where dreams are born in a brilliance like no other. "At NK Industries, we don't merely produce Roto Gravure Cylinder making machines; we sculpt precision. We have over 30 years of experience in this industry and year by year we have cultivated and refined our machines to meet changing technologies. Our unwavering commitment to quality and leveraging cutting-edge technology ensures a transformative experience for your Roto Gravure Cylinder making processes, ensuring unparalleled value for your investment. It's beyond innovation; it's a collective effort fueled by passion and expertise, guided by the visionary leadership and in-depth experience of Muhammad Naushad Khan & Muhammad Muslim Kazmi Together, we set pioneering benchmarks in



Our Mission:

To forge trust, innovation, and precision in Roto Gravure Cylinder making machine, sculpting a future where excellence harmonizes with sustainability.

Our Vision:

EMPOWERING industries with state-of-the-art solutions today
for an expansive world of POSSIBILITIES TOMORROW.





GCM-Series

COPPER PLATING MACHINE



Description

Copper plating machine is use for copper plating after cutting and grinding of M.S. base shell. Using latest technology only need to input in operator parameter the entire plating process handle by PLC step by step automatically. Our machine is simple operation high output due to high current density and easy maintenance due to compact, simple design and automatic top cover.
The copper sulfate reduction unit allows the reduction of copper sulfate in electrolyte with the help of a PLATINODE anode (Nobel metal) in working tank.

TECHNICAL SPECIFICATION

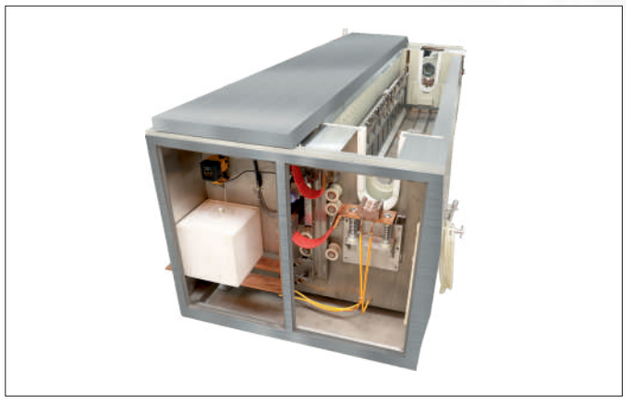
Model No.	Cu-1.6	Cu-2.0	Cu-2.2	Cu-2.5
Cylinder maximum face length	1600 mm	2000 mm	2200 mm	2500 mm
Cylinder minimum face length	400 mm	400 mm	400 mm	400 mm
Cylinder maximum circumference	1300 mm	1300 mm	1300 mm	1300 mm
Cylinder minimum circumference	380 mm	380 mm	380 mm	380 mm

Current density	30-35 A/DM2
Temperature	28-34 degree Celsius
Cylinder immersion	50% - 60%
Electrolyte rotation Rate	25000 Ltr./hours
Number of circulation pump	2 pump
Heater	4.5kw
Dosing pump	1 nos
Reduction unit	Nobel Metal Bar (MMO) optional

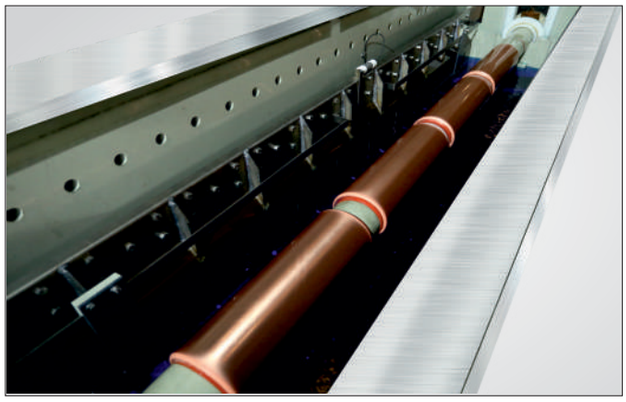
ROTO GRAVURE PRINTING CYLINDER PLANT, NICKEL, COPPER, CHROME DE-CHROME, DEGREASING, CYLINDER WASHING MACHINES CHROME POLISH & PROOFING MACHINE











"Any revolution is as robust as its foundational values."

GCM-Series

CHROME PLATING MACHINE



Description

Chrome plating machine is use for chrome plating after engraving. Using latest technology only need to input in operator parameter the entire plating process handle by PLC step by step automatically. Our machine is simple operation high output due to high current density and easy maintenance due to compact and simple design.
With Chromium separator with aerosol filter and rinsing system is designed for (2500m3/h) a cleaning efficiency of 0.1 mgcr/m3 can be reached.

TECHNICAL SPECIFICATION

Model No.	Cr-1.6	Cr-2.0	Cr-2.2	Cr-2.5
Cylinder maximum face length	1600 mm	2000 mm	2200 mm	2500 mm
Cylinder minimum face length	400 mm	400 mm	400 mm	400 mm
Cylinder maximum circumference	1300 mm	1300 mm	1300 mm	1300 mm
Cylinder minimum circumference	380 mm	380 mm	380 mm	380 mm

Current density	50-60 A/DM2
Temperature	60 degree Celsius
Cylinder immersion	50% - 60%
Electrolyte rotation Rate	15000 Ltr./hours
Number of circulation pump	2 pump
Heater	13.5kw in

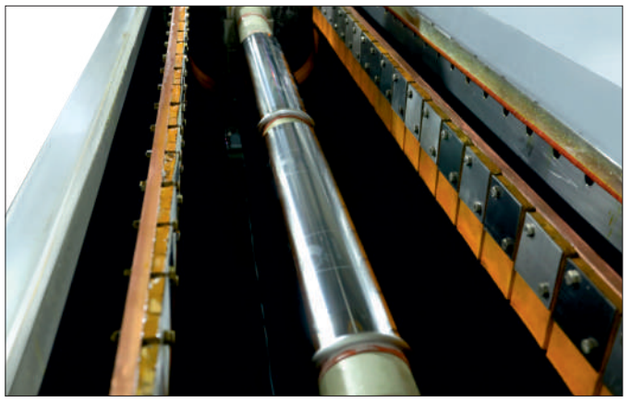
ROTO GRAVURE PRINTING CYLINDER PLANT, NICKEL, COPPER, CHROME DE-CHROME, DEGREASING, CYLINDER WASHING MACHINES CHROME POLISH & PROOFING MACHINE











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GCM-Series

NICKEL PLATING MACHINE



Description

Nickel Plating provides a unique combination of corrosion and wear resistance. It can add brightness lusture and appeal. It also provides excellent adhesion properties for subsequent coating layers, which is why nickel is often used as an undercoat for other coating such as copper plating.
In rotogravure the main condition is to obtain a properly grinded surface. On the iron surface of cylinder a small thickness (approximately 5 to 10 micron) of nickel layer to be deposited to provide proper adhesion between iron and copper.

TECHNICAL SPECIFICATION

Model No.	Ni-1.6	Ni-2.0	Ni-2.2	Ni-2.5
Cylinder maximum face length	1600 mm	2000 mm	2200 mm	2500 mm
Cylinder minimum face length	400 mm	400 mm	400 mm	400 mm
Cylinder maximum circumference	1300 mm	1300 mm	1300 mm	1300 mm
Cylinder minimum circumference	380 mm	380 mm	380 mm	380 mm

Current density	2-2.5A/DM2
Temperature	40 degree Celsius
Cylinder immersion	50% - 60%
Electrolyte rotation Rate	25000 Ltr./hours
Number of circulation pump	2 pump
Heater	9 kw

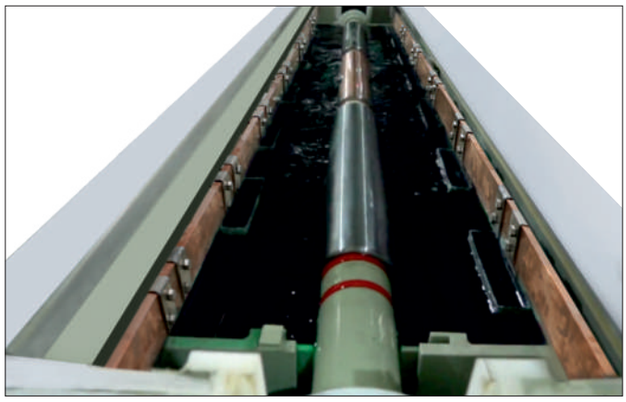
ROTO GRAVURE PRINTING CYLINDER PLANT, NICKEL, COPPER, CHROME DE-CHROME, DEGREASING, CYLINDER WASHING MACHINES CHROME POLISH & PROOFING MACHINE











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GCM-Series

DE-CHROME MACHINE AUTO/MANUAL



Description

De-chroming is an electrochemical process is used to remove the chrome layer from workpieces without damaging material. It is a gentle process that allows for the reuse of components with a chrome coating.

Process-

During the de-chroming process, an electrolytic solution is used an ambient temperature, with the current direction opposite to that used during chrome plating. Components with a coating can be easily disassembled, de-chromed, and re- coated without the need to replace specific parts entirely. By reusing components, waste is reduced and the environment is protected. Whole machine body is made up of by SS sheet (SS-316 grade)

TECHNICAL SPECIFICATION

Model No.	Dec-1.6	Dec-2.0	Dec-2.2	Dec-2.5
Cylinder maximum face length	1600 mm	2000 mm	2200 mm	2500 mm
Cylinder minimum face length	400 mm	400 mm	400 mm	400 mm
Cylinder maximum circumference	1300 mm	1300 mm	1300 mm	1300 mm
Cylinder minimum circumference	380 mm	380 mm	380 mm	380 mm

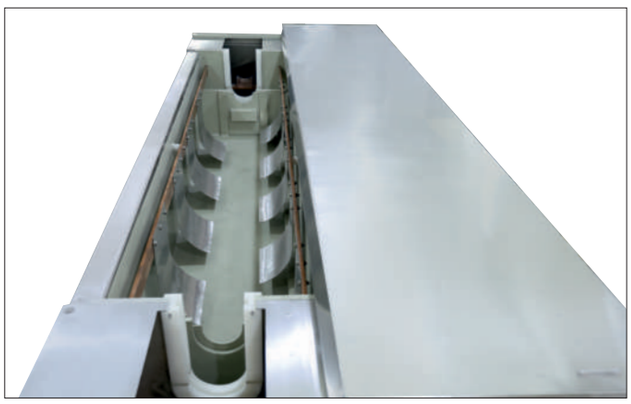
Current density	8-10 V dc (5 – 10 minutes)
Temperature	35 degree Celsius
Cylinder immersion	50% - 60%
Electrolyte rotation Rate	15000 Ltr./hours
Number of circulation pump	2 pump
Heater	4.5 kw

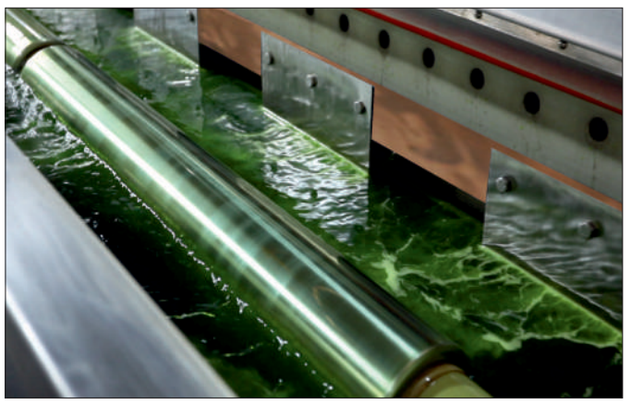
ROTO GRAVURE PRINTING CYLINDER PLANT, NICKEL, COPPER, CHROME DE-CHROME, DEGREASING, CYLINDER WASHING MACHINES CHROME POLISH & PROOFING MACHINE











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GCM-Series

ELECTROLYTIC DEGREASING MACHINES



Description

Electrolytic degreasing is the method in an electroplating process, which is used for the removal of cylinder surface grease before electroplating.
Electrolytic degreasing is a method, generally to electrolyze the cylinder as cathode or anode in the alkali solution and degreasing. Electrolysis produce hydrogen gas from cathode an oxygen gas from anode, that reinforce agitation affect and mechanical of material surface.

TECHNICAL SPECIFICATION

Model No.	Edg-1.6	Edg-2.0	Edg-2.2	Edg-2.5
Cylinder maximum face length	1600 mm	2000 mm	2200 mm	2500 mm
Cylinder minimum face length	400 mm	400 mm	400 mm	400 mm
Cylinder maximum circumference	1300 mm	1300 mm	1300 mm	1300 mm
Cylinder minimum circumference	380 mm	380 mm	380 mm	380 mm

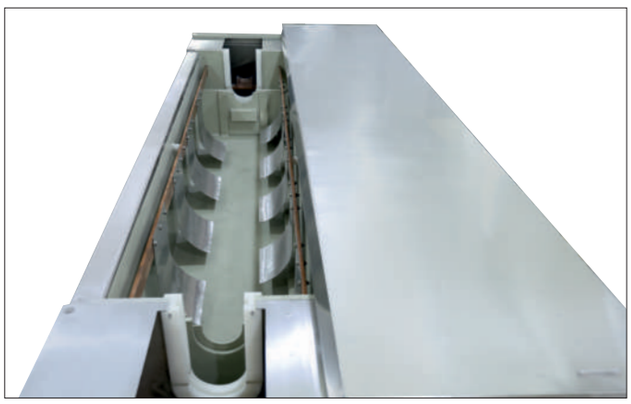
Current density	8-10 A/DM2 (5–7 minutes)
Temperature	35 degree Celsius
Cylinder immersion	50% - 60%
Electrolyte rotation Rate	15000 Ltr./hours
Number of circulation pump	2 pump
Heater	4.5 kw

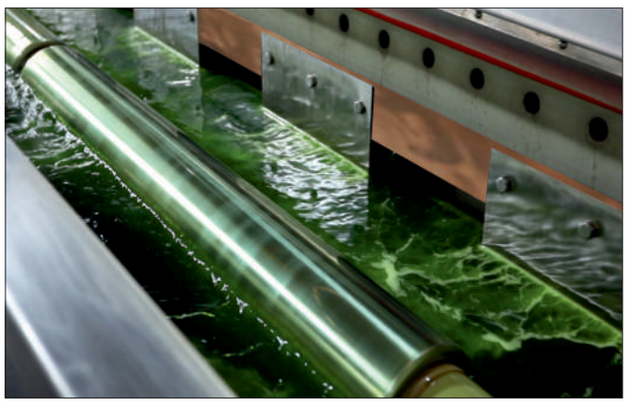
ROTO GRAVURE PRINTING CYLINDER PLANT, NICKEL, COPPER, CHROME DE-CHROME, DEGREASING, CYLINDER WASHING MACHINES CHROME POLISH & PROOFING MACHINE











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GCM-Series

ROTO GRAVURE CYLINDER

WASHING UNIT

Washing

COVER BODY

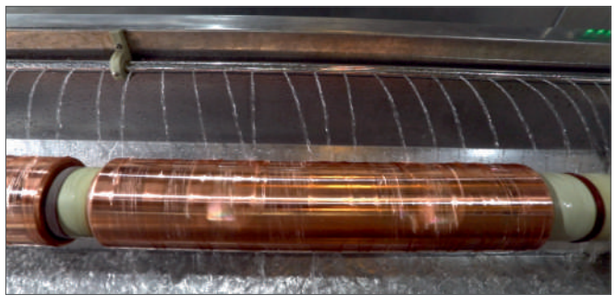




OPEN BODY







Description

A Roto Gravure Cylinder washing unit is an essential piece of equipment used in the roto gravure printing Cylinder process. Gravure printing involves engraving an image onto a cylinder, and over time, these cylinders can become contaminated with ink residues, dirt, and other impurities. The washing unit is designed to clean these cylinders effectively to maintain print quality and prolong the life of the cylinders.

Key Components and Functions of a Roto Gravure Cylinder Washing Unit
Washing Chamber: The central part of the unit where the cylinders are placed for cleaning.

Cleaning Solution Delivery System: This system delivers the cleaning agents or solvents required to remove ink and other contaminants. It can be automated to ensure consistent and thorough application of the cleaning solution.

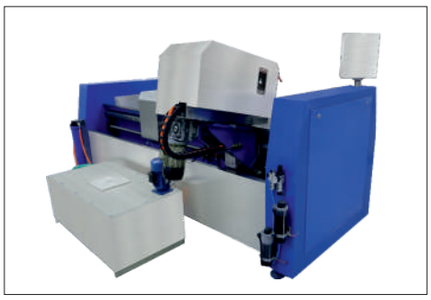
GCM-Series

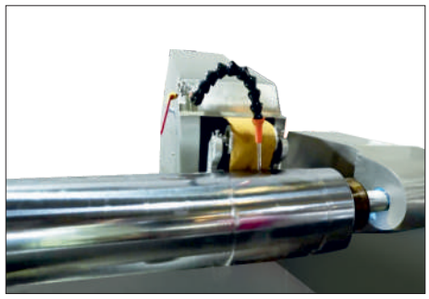
ROTO GRAVURE CYLINDER

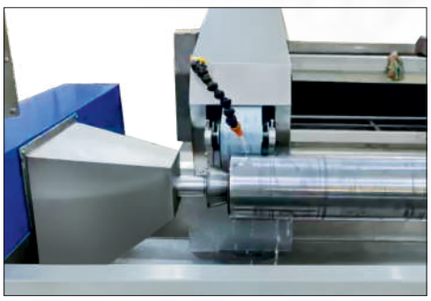
CHROME POLISH UNIT

Chrome Polish Unit









Description

Chrome Polishing Machine is especially designed for polishing on cylinder that has been chrome plated after electronic engraving. The pattern 'S' on chrome surface will be smooth and bright after polishing which guarantees for satisfactory printing quality. The size of the machine is 1600mm working and customize as per customer requirement as well.

The PLC operating system one button start and all program run automatically, Cr-Finishing Film is automatically Rewinded. And equipped with linear guideway and ballscrew for forward and backward movement of polishing head. And read circumference automatically.

Cylinder Data	
Cylinder maximum face length	1600 mm
Cylinder minimum face length	400 mm
Cylinder maximum circumference	1300 mm
Cylinder minimum circumference	380 mm

GCM-Series

ROTO GRAVURE CYLINDER

PROOFING MACHINE



Description

Proofing machine is especially designed for roto-gravure cylinders. This machine functions to inspect the electronically engraved cylinders. Moreover, it is suitable for different proofing size according to customer requirement.

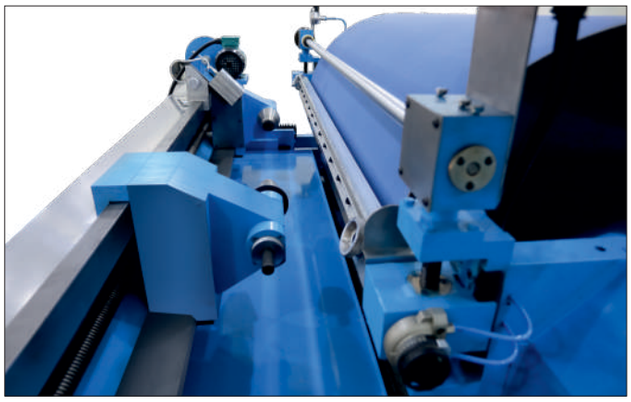
Proofing machine equipped with hydraulic clamping, clockwise or counter-clockwise rotation, pneumatic doctor blade holder pressure and angle adjustment system, high resolution camera for the focusing of image and registration mark 24" led screen fine tuning of cylinder position.

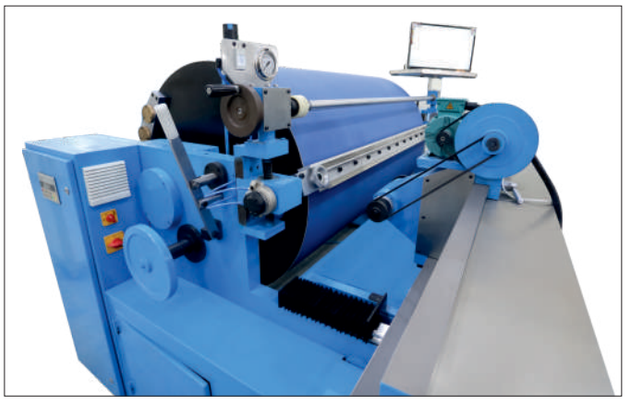
The machine is provided with cylinder clamping and rotation, blade lifting, pressure adjustment pneumatic control, and photo focusing lens with resolution

Cylinder Data		
	Cylinder maximum face length	1600 mm
	Cylinder minimum face length	400 mm
	Cylinder maximum circumference	1300 mm
	Cylinder minimum circumference	380 mm

ROTO GRAVURE PRINTING CYLINDER PLANT, NICKEL, COPPER,
CHROME DE-CHROME, DEGREASING,
CYLINDER WASHING MACHINES
CHROME POLISH & PROOFING MACHINE











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ETP UNIT



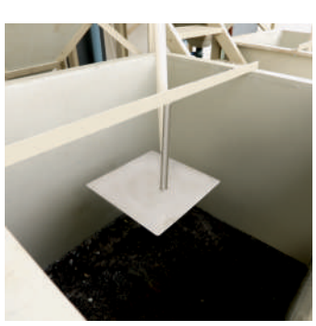
Description

An ETP plant plays a critical role in safeguarding our environment. Industrial processes can create a significant amount of waste, which if not treated correctly, can cause substantial harm to the ecosystem. That's where ETP plants come in.

In essence, these plants detoxify, neutralize, and treat harmful waste. They ensure the by-products of various industrial processes don't contaminate our water bodies and soil, providing a sustainable and eco-friendly solution to waste management. Moreover, they also contribute to water conservation by recycling and reusing wastewater within the industrial processes, thereby reducing the demand for freshwater resources.









Control Panel

In House Facilities











FITTING & ACCESSORIES



Fittings



Engraving Cone



SS Blower



PP Blower



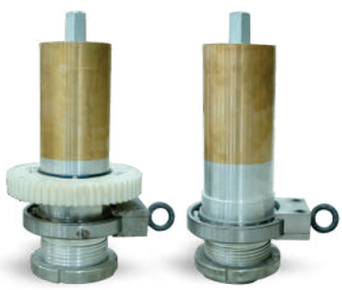
Chromium Separator



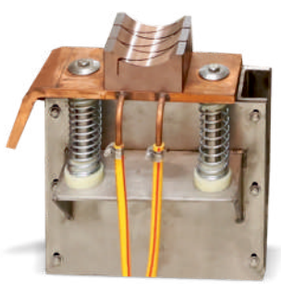
Copper Grinding Cone



Cylinder Machine Trolley



Bearing Block



Carbon Bushes



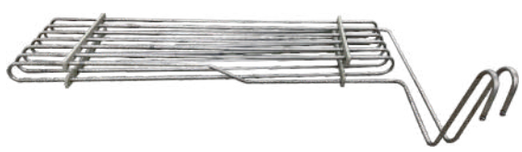
Fitting Unit



Cylinder Trolley



Cylinder Balancing Table



Titanium Cooling Coil

OUR MACHINERY













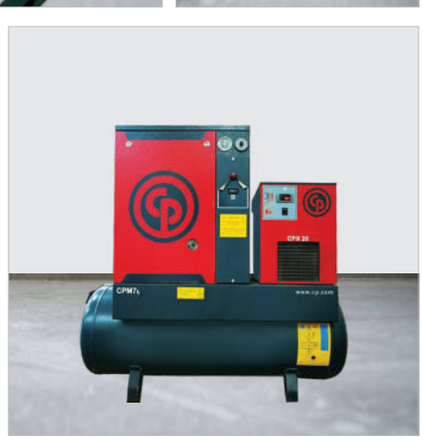












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Journey Continues...

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N.K. INDUSTRIES

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