

OUR MISSION

NMP mission is to provide advanced solutions to our customers while setting the standard for quality and value. We strive to create and provide products and services to meet and exceed expectations in quality, reliability, delivery and cost.

VISION

To emerge as a leader in filtration industries and dynamic competitor in global market by focusing on our goals in line with the voice of customers and together achieving the growth objectives set by our customers, associates and business partners.

Global Export

Today NMP products are Exported to several countries Across the entire world. Our Export team strives to gratify Our customers round the Clock. We would be eager to Know you in getting right product.





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Your Solution Partner For Solid/liquid Filtration Technology

AN ISO 9001:2015 **CERTIFIED COMPANY**



FRONT



WHAT IS FILTER PRESS ?

A filter press is a batch operation, fixed volume piece of equipment ranging from 01-600ft3 that separates liquids and solids using pressure filtration. A slurry is pumped into the filter press and dewatered under pressure. A filter press can be used for process, water and wastewater treatment in a variety of different industries and applications.



Manifold: Our standard manifold consists of piping and valves which control the slurry inlet and connect the four corner filtrate discharge ports into a common discharge pipe. (C)

Filter Cloth: A cloth filter that is attached to both sides of a filter plate. Solids build up on cloth to form a filter cake, separating liquids from solids.

HOW DOES IT WORK?

Slurry is pumped into the filter press. The solids are distributed evenly on the filter cloths during the feed (fill) cycle.



FILTRATION CYCLE

Solids start to deposit on the filter cloth, trapping the ensuing particles and building a filter cake. The filter cake acts as a depth filter for solid/liquid separation. Filtrate exit from the plates through the corner ports into the manifold. When the correct valves in the manifold are open, the filtrate exits the press through the filtrate outlet. As the filter press feed pump builds pressure, the solids build within the chambers until they are completely full of filter cake.

CAKE WASH/AIR CYCLE

It is useful for maintaining pH value of filter cake and decrease the moisture in filter cake. It is apply in diagonal direction as shown in Fig. 1.1 & 1.2.

CAKE DISCHARGE CYCLE

Once the chambers are full, the feeding cycle is complete and the filter press is ready to unload.





INFRASTRUCTURE & **MANUFACTURING FACILITIES**

Our products are all manufactured under one roof. our production department is well segregated into following sections,

Fabrication Section

Fabrication shop is equipped with MIG, TIG welding, grinding machines, Cutting machines, Honing machines.

Machining Section

Our Machine shop is highly equipped with the latest, state art of technologies such as CNC machining centres, Turning lathes, Vertical machining centers, Drilling machines, Horizontal Boring Machines, Milling machines for carrying out machining works.

Moulding Section

Our filter plates are moulded using compression moulding technique. Approximately, 10 plates can be moulded each day in each size which varies from 355x355 mm to 1500x 2000 mm.

Assembly Section

The assembly unit consist of 2 sections: Machine assembly unit & Hydraulic assembly unit. In hydraulic assembly section, the hydraulic power pack is assembled. The hydraulic cylinder is manufactured, honed and assembled to the Hydraulic head of the machine. They are available with mechanical locking as well as automatic pressure compensation system, with a stroke length ranging from 150 mm to 4000 mm. The Cylinder is designed for various sizes of Filter Press depending upon the Pressure ranging from 15 tons to 400 tons.

Inspection & Testing

PP plates and Filter press structure are dimensionally checked before dispatch to assure no deviations and the Filter press machine is subjected to a mechanical load test to a maximum pressure of 300 bar to check if any pressure drop or leakage.

Sustainable growth through smarter separation solutions

In many of the world's most important industries, separation is vital to sustainable growth. With the right solution, food producers can continuously improve their products while reducing waste. Cities can save energy and conserve millions of cubic meters of water. Mining companies can efficiently boost through out to meet fast-changing global demands. And chemical manufacturers can optimize for absolute product purity. When it comes to the separation technologies and services that maximize the value of your most precious resources, no one has broader capabilities than NMP.

NMP is the world's leading separation specialist, with the deepest knowledge, broadest technical resources, and most comprehensive service solutions. For more than 42 years, we have helped our customers respond to the world's environmental, energy - resource, health, and nutrition challenges by leveraging our extensive knowledge to create, develop, implement, and service innovative separation solutions. By solving these fundamental challenges, we create lasting value and drive growth across every industry we serve.

Improved Uptime, Efficiency and Costs

The driest cake - minimizes handling and processing costs. Reliable performance and very high uptime - reduces operating costs. Durable robust design and construction - minimizes maintenance costs.

Industries We Serve

Environment	Food	Dyes & Inter
Chemicals	Mining 8	& minerals

Flexible Products for Every Mining Application

APPLICATION

- The clearest liquid effluent suitable for reuse, improves water conservation.





PRESS SIZING FORMULAS

- Information needed to quote a press
- Type of slurry to be processed
- Amount of slurry to be processed in given amount of time expressed in either.
- Liter per minute, per hour, per day, or per week
- Kilogram of solids (100% dry basis) per time period
- Number of hours per day ,and days per week the process operates
- Percent solids (by weight) in slurry
- Specific gravity of slurry if available
- Process operating temperature
- Density of wet filter cake
- Chemical conditioning amounts, if required (D.E., etc.)
- Press location: Indoor or outdoor, temperature range
- Desired cake thickness (std. is 32mm 11/4")
- Desired closure & control automation (Specify: Manual, Semi-Automatic or Automatic)
- Other (Please specify optional features required)

STANDARD SLURRIES

Volume of slurry in Liter.per cycle x % solids x 8.34 x specific gravity of slurry

Density of wet cake in lb. per ft x(%) dry solids in filter cake

METAL HYDROXIDE SLURRIES

Volume of slurry in Liter.per cycle x(%) solids in feed

2.89

Filter Press Size	Recommended Chambers	Cake Thickness	
355	14	30	
470	18	32	
610	24	35	
800	30	35	
915	36	40	
515	36	50	
1000	40	40	
1000	40	50	
1200	50	40	
1200	50	50	
1500	60	40	
1500	60	50	
1500	70	40	
2000	70	50	

FILTER PRESS SPECIFICATION

Filtration	Wet Cake Volume	Dimensions		
Area(iii')	(Liters)		В	н
2.11	29.4	2450	720	850
6.12	93.24	3068	830	870
13.48	235.95	3749	980	1140
29.40	514.50	4580	1260	1450
48.60	972.00	5124	1760	1490
49.32	1216.80	4630	1500	
65.60	1232.00	5865	1760	1476
68.00	1500.64	6265	1500	
119.00	2000.00	6670	1670	1900
124.00	2520.00	7170	1070	
224.40	4122.00	7820	2200	2275
231.00	5250.00	8422	2200	
347.20	6419.00	8530	2200	2790
358.40	8176.00	9122	2200	



RECESSED /CGR FILTER PRESS

NMP recessed plate filter presses can be used in a wide range of application due to the numerous application in the set of filter plates. a grate number of combination are possible depending on size, chamber depth, filtration area and filter volume, resulting in optimum filter lay-outs for any applications.

The installation of our plate shifting system, together with our automatic filter cloth cleaning system is an important features for the use of recessed plate filter pressure in automated process operations.

Either over huge filter cloths which are fixed on the slurry inlet, or put-through cloths are use.



Expansion options available for future capacity

- Two side feeding.
- Drip tray (Boom Door) Device.
- Filter cloth washing device.
- Filter cloth tilting device.
- Filter cloth shaking device.
- Automatic Plate Shifting Device.



"Special ized soluctions for successful fil tration"





MEMBRANE FILTER PRESS



BENEFITS OF THE MEMBRANE FILTER PRESS

• Short filtration cycles.

• Short washing cycles.

• Low residual moisture.

• High elasticity of membrane.

• Sealing of filter plate system.

• Safety factor of the membrane system.

• Time-independent membrane movement.

• Large cross-sectional area of filtrate outlet.

• No direct load on membrane due to press closing force.



ACCESSORIES AND OPTIONAL EQUIPMENT



1. PLATE SHIFTING

Hydro-mechanical shifting of the filter element by the pair of articulated carries, which are fixed two endless chains and which grip the last filter element ,displace it towards those already shifted and automatically release it. an interlocking system ensure that the filter elements are shifted one after other. alternatively, the snatch and latch plate opening system can be adapted to the filter to open the plates in a continuous sequence for non-sticky cakes.

2. SET OF FILTER PLATE

The parallel recessed filter plates or plates and frames respectively are available in a wide range of materials. the filter plates are designed as pressure or wash plates, with open or closed filter discharge. membrane filter plates are used whenever a lower residual moisture and good washing of the filter cake are required.

3. FILTER CLOTHS

Filter cloths available as simple cloths ,straddle cloths, put-through cloths and overhung cloths made of synthetic fibre material such as polypropylene, polyester, polyamide and a wide range of other synthetic materials.

4. ELECTRIC CONTROL

The control of the filter press, the process valves and other accessory devices is alternatively ensured by programmable logic electronic controls, permanently, linked electronic controls or relay controls.

Maximum Process Efficiency

5. AUTOMATIC DRIP TRAY

The slightly inclined drip plates are arranged below the set of plates and guide filtrate leakages into the collecting chute, for cake discharge, they are swivelled downwards and thus from an opening for the cake which fall out of the chambers during opening and closing of the filter press, the swivel plates are moved automatically by means of a hydraulic system.

6. FILTRATE COLLECTING CHUTE

This chute serves to collect and guide the filtrate which comes out of individual outlets, when it is necessary to make a visual inspection of the filtrate to check clarity, combined with swivel plates, the filtrate collecting chute also serves to collect filtrate leakages.

7. HYDRO-MECHANICAL FILTER CLOTH CLEANING

Fully automatic with pressure water unit spray, this is integrated into the filter control. The spray pipes are fed by a high-pressure pump and can be shifted vertically and laterally.





FILTER PRESS ACCESSORIES























CLOSING DEVICE



PULL BACK TYPE CYLINDER



FILTER PLATES



SIDE CORNER FEED MEMBRANE FILTER PLATE



PLATE AND FRAME FILTER PLATE



SIDE CORNER FEED COMPANION FILTER PLATE



CENTER FEED MEMBRANE FILTER PLATE















CGR FILTER PLATE



OPEN AND CLOSE DELIVERY LAYOUT



FILTER PRESS PICTURE





Excellence at Every Step of The Process.





FILTER CLOTH

NMP offers a wide ranges of Woven, Non woven and felted synthetic cloth. Woven construction of multi and monofilament fabrics having different air permeability or pore sizes. Thermal treatment (calendaring) results in unique surface properties that enhance filtration performance and cake release characteristics. The range of synthetic materials used comprises PP, PA, PET, PE and other polymers. We also offer antistatic cloth.

Fabrication and assembly of filter cloth plays an important role to the fabric design in achieving optimum performance. A precise fit assures highest performance.

NMP filter fabrics have been designed to meet with all and specific conditions in the filter press. The choice of correct fabrics, their assembly and fabrication techniques are tuned to the requirements of different sludge, products and industries. Easy Cake release, ease-ofcleaning, extended life-time, particle retention and service costs are basic requirements to be taken into consideration.

NMP filter cloth products are well suited to all press types. Our product types include:

- Barrel neck cloths with different attachments
- overhang cloths
- Head and End Plates cloths



FILTER CLOTHS

COMPANY PROFILE

NMP is one of the most professional and the largest filter plate and filter press manufacturers in India. Our company is located in Bilimora, Dist. Navsari, Gujarat. We promise to provide products of high quality and excellent sales and after-sales service to our customers. And we are keen to meet customers' needs.

With strong R&D capabilities, NMP has developed and produced manual, mechanical, hydraulic and program controlled automated membrane, guick opening membrane, over beam and automated washing filter presses. Moreover, we have developed series of recessed, membrane and plate and frame filter plates, such as high temperature and pressure polypropylene membrane filter plate, rubber membrane filter plate, high temperature chamber plate, CGR plate and other types for special purposes. We have established a worldwide marketing network covering the UK, Germany, the USA, Brazil, India, Bangladesh, Thailand, Malaysia, Japan, Russia, Egypt, South Africa and many other countries and regions. We have sold our equipment for a wide variety of international applications such as mining, chemical industry, waste water treatment, food industry, edible oil, Biodiesel, metallurgy etc. NMP has obtained ISO 9001:2015 certificate of quality management system.

Why NMP?

NMP wants to make a difference. We are innovative, focused on customer service and always try to exceed expectations. We are an environmentally conscious company with people who are energized, encouraged and inspired to make a difference on our planet by helping to keep our shared, finite water supply clean and usable for generations to come.

Together, we can make a difference.

The Key Ingredient to Optimizing **Your Filter Press Operations**