MAXXFIL FILTRATION

NBD SERIES | AUTOMATIC BELT PRESS WITH ROTARY DRUM SCREEN

WRC EQUIPMENT

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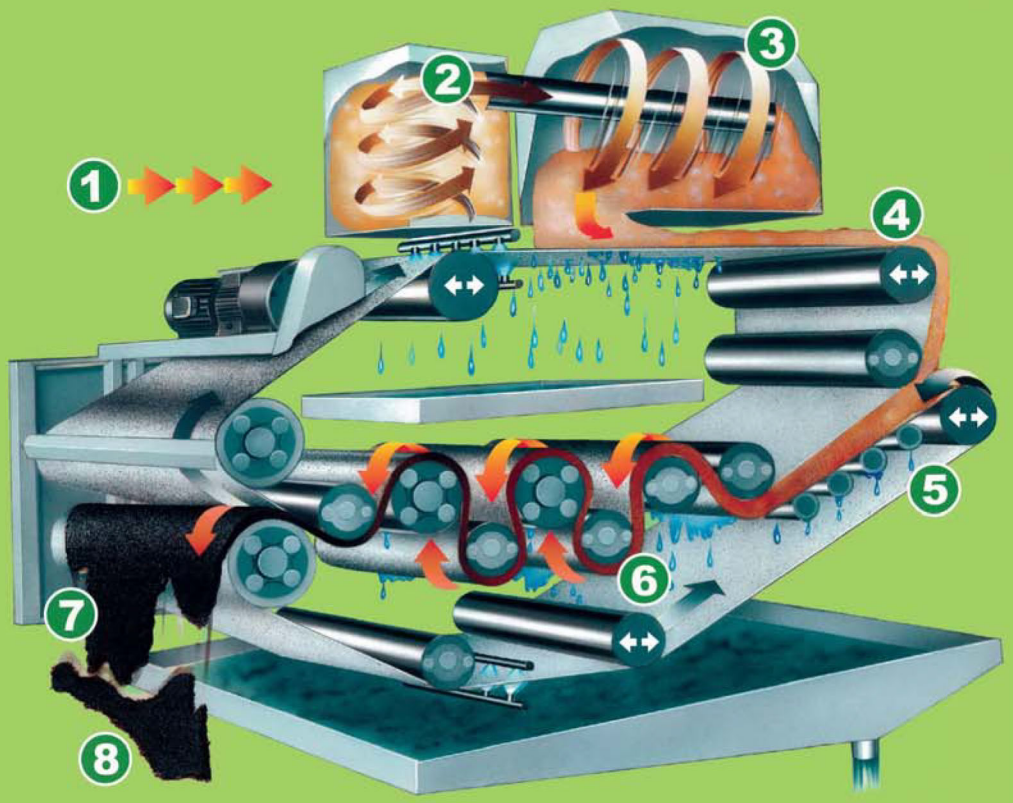
Treatment Procedures



FEATURES

1. Professional design to accommodate various type of environment.
2. Fully automatic for effortless continuous operation.
3. Proprietary rotary thickening system, help increase sludge processing and conditioning performance.
4. European high tensile belts - Facilitate high permeability and longevity.
5. Applies uniform drive torque to both belts to provide higher cake solids and improved belt life.
6. Rack and pinion tension equalization assures even belt tension and accurate tracking.
7. Various safety features prevent operational hazard and increase production efficiency.
8. Low noise - Low vibration - Durable and stable performance.
9. Simplify consume parts replacement to reduce maintenance cost.
10. Broadly applicable in various sludge type.

1 Sludge Thickening

To reduce treatment cost,the sludge is thickened by the gravity sediment.

2 Flocculation Tank

Flocculation tanks are used to mix polymer and sludge prior to sludge dewatering. Floc tanks generally have an open top,which allows operators to easily visually observe floc conditions.

3 Rotary Dewatering

Sludge flows into rotary drum screen. Due to rotation mixing, a lot of free water would be separated from the sludge.

4 Gravity Drainage

On the roller, the gap water is draining off from the belt due to the low span vibration of the filter and gravity of the sludge.

5 Compression Dewatering

After gravity drainage zone, the sludge is carried into wedge shape compression dewatering section and gradually compressed. Then a certain thick sludge pass in the shear dewatering section.

6 Pressing Zone

The sludge enters into pressure zone, the pressing force is from the S-shaped configuration of dewatering rollers.

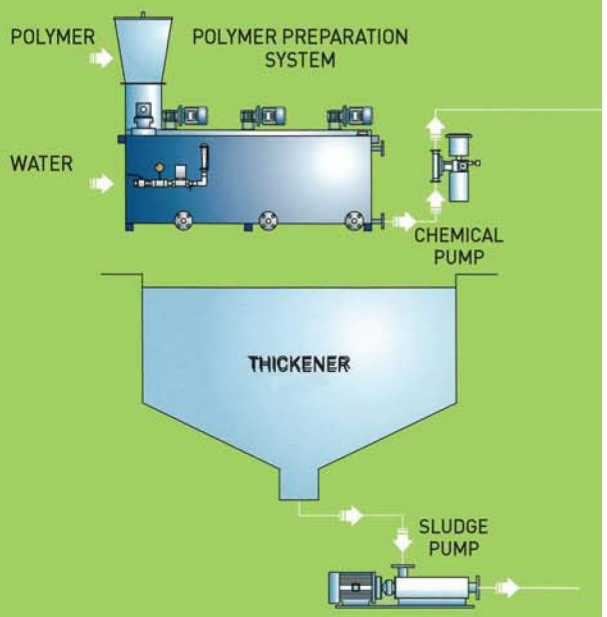
7 Sludge Cake

The water content of the sludge cake is about 75~85% (based on different sludge characteristic)

8 Cake Removal

At this discharge of the press, the cake is scraped off by the blade and is recycled or land filled.

FLOW SHEET




Liquid Sludge


Flocculate


Sludge Thickening


Plating Sludge Cake

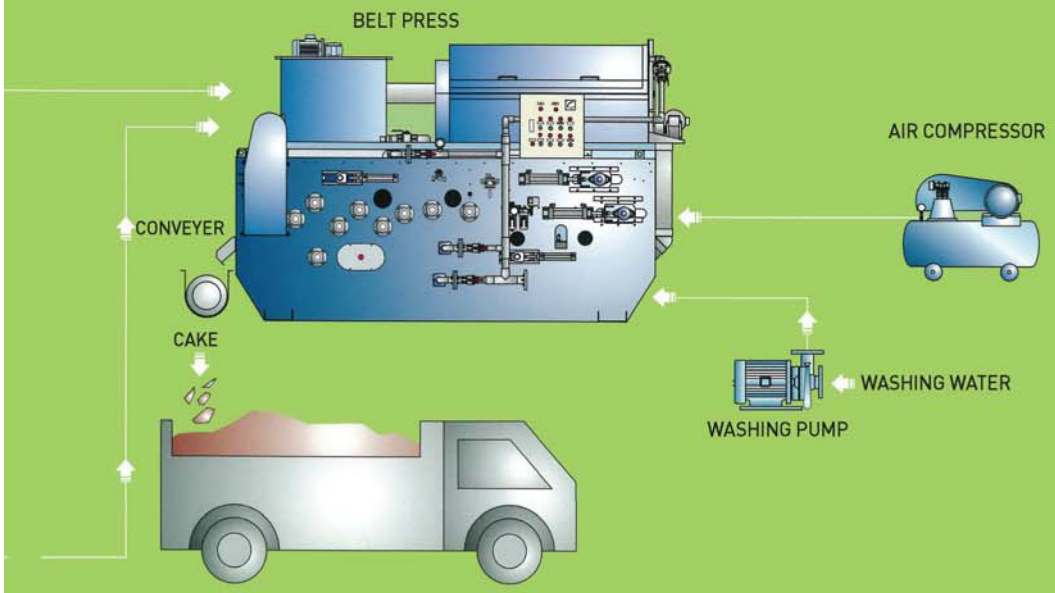

Leather Sludge Cake


Metal Sludge Cake


City Mixed Sludge Cake


Paper Mill Sludge Cake


Dyeing Sludge Cake



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DEHYDRATION PERFORMANCE DATA LIST

Type of sludge	Solid content of sludge (%)	Water content of cakes (%)	Polymer for DS % (DS%)
City Excess Activated Sludge	0.4 ~ 1.5	78 ~ 84	0.5 ~ 1.0
City Mixed Raw Sludge	1.5 ~ 3.0	77 ~ 82	0.3 ~ 0.8
Paper & Pulp Sludge	2.0 ~ 4.5	66 ~ 80	0.2 ~ 0.5
Dyeing Sludge	1.5 ~ 2.5	80 ~ 84	0.3 ~ 0.6
Leather Sludge	2.5 ~ 4.5	78 ~ 82	0.4 ~ 0.8
Plating Sludge	1.5 ~ 2.5	72 ~ 80	0.2 ~ 0.6
Metal Sludge	2.5 ~ 3.5	72 ~ 80	0.3 ~ 0.7
Stone & Mining Sludge	6.0 ~ 18	43 ~ 65	0.2 ~ 0.4
Water Purifying Sludge	1.5 ~ 4.5	75 ~ 80	0.3 ~ 0.6
Food & Beverage Sludge	1.0 ~ 1.5	78 ~ 84	0.6 ~ 1.1
Livestock Sludge	2.5 ~ 5.5	78 ~ 83	0.4 ~ 0.8
Butchery Sludge	1.0 ~ 3.5	78 ~ 85	0.5 ~ 1.0

Key Components

01

Belt tracking adjustment

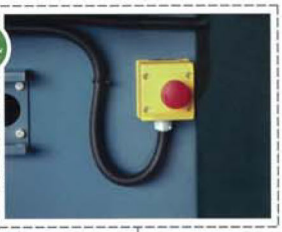
02

Belt tracking mechanism

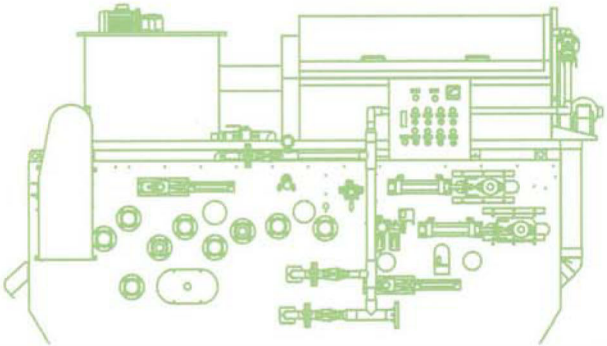
03

Control panel

04



Emergency stop device



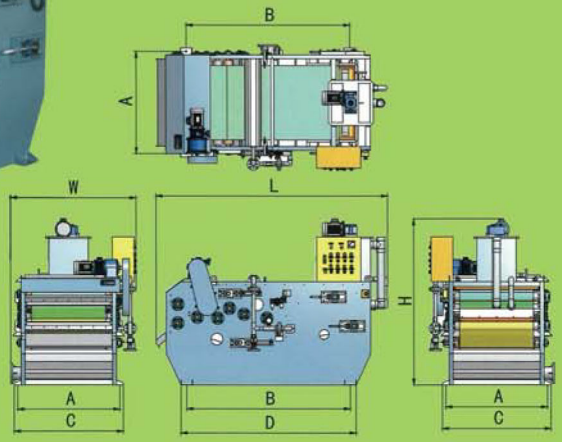
Air system

Brush clean spray bars

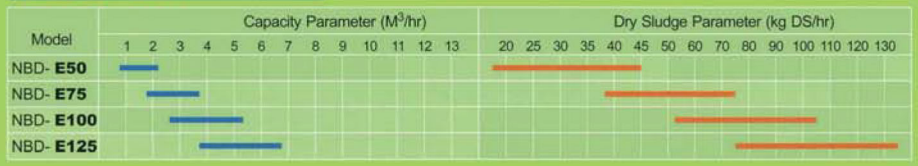
Belt tension system

Limit switch

NBD E Product Introduce



NBD-E (>1.5%)



NBD-E Technical Data

Model	Belt Width (mm)	Capacity (m³/hr)	Dry Sludge (Kg DS/hr)	Belt Velocity (M/min)	Use Power		Wash Water (m³/hr)	Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Weight (KG)
					Drive (HP)	Conditioning (HP)				
NBD-**E50**	500	0.8 ~ 2.3	15 ~ 45	2~8	1 / 2	1 / 4	1.9	2373 1029 1681	786×1680 856×1800	660
NBD-**E75**	750	1.8 ~ 3.7	37 ~ 75	2~8	1 / 2	1 / 4	2.9	2373 1274 1681	1036×1680 1106×1800	740
NBD-**E100**	1000	2.6 ~ 5.3	52 ~ 105	2~8	1 / 2	1 / 4	3.8	2373 1524 1681	1286×1680 1356×1800	820
NBD-**E125**	1250	3.8 ~ 6.8	75 ~ 135	2~8	1 / 2	1 / 4	4.8	2373 1779 1681	1536×1680 1606×1800	900

The chart above is for reference only.Sludge condition and characteristics Produce varied results.

NBD M

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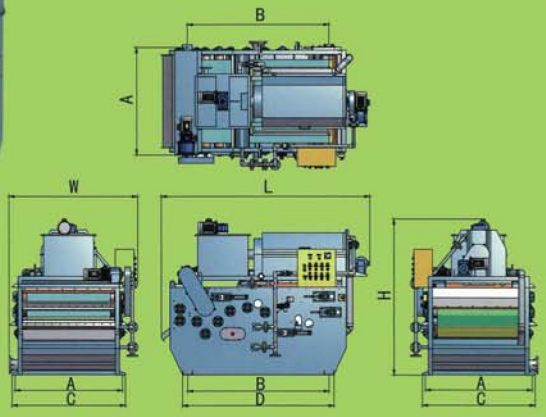


NBD-M (>1%)

Model	Capacity Parameter (M^3/hr)													Dry Sludge Parameter (kg DS/hr)												
	1	2	3	4	5	6	7	8	9	10	11	12	13	20	25	30	35	40	45	50	60	70	80	90	100	110	120	130
NBD- **M50**																												
NBD- **M75**																												
NBD- **M100**																												
NBD- **M125**																												

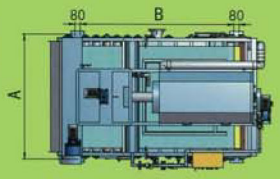
NBD-M Technical Data

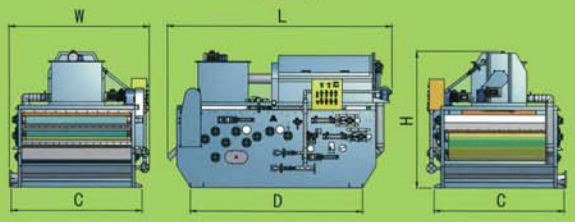
Model	Belt Width (mm)	Capacity (m^3/hr)	Dry Sludge (Kg DS/hr)	Belt Velocity (M/min)	Use Powerr			Wash Water (m^3/hr)	Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Weight (KG)
					Drive (HP)	Flocculation Tank (HP)	Rotary Drum Screen (HP)				
NBD-**M50**	500	1 ~ 3	15 ~ 45	2 ~ 8	1/2	1/4	1/4	3.8	2439 1047 1881	786×1680 856×1800	860
NBD-**M75**	750	2.5 ~ 5	37 ~ 75	2 ~ 8	1/2	1/4	1/4	5.3	2439 1284 1881	1036×1680 1106×1800	940
NBD-**M100**	1000	3.5 ~ 7	52 ~ 105	2 ~ 8	1/2	1/4	1/4	7.2	2486 1534 1861	1286×1680 1356×1800	1020
NBD-**M125**	1250	5 ~ 9	75 ~ 135	2 ~ 8	1/2	1/4	1/4	8.7	2486 1784 1861	1536×1680 1606×1800	1100

The chart above is for reference only.Sludge condition and characteristics Produce varied results.

NBD

Product Introduce





NBD-L (>1%)

Model	Capacity Parameter (M^3/hr) 8 10 12 14 16 18 20 24 28 32 36 40 50	Dry Sludge Parameter (kg DS/hr) 80 90 100 120 140 160 180 200 240 280 320 360 400 440 480
NBD- **L125**		
NBD- **L150**		
NBD- **L175**		
NBD- **L200**		

NBD-L Technical Data

Model	Belt Width (mm)	Capacity (m^3/hr)	Dry Sludge (Kg DS/hr)	Belt Velocity (M/min)	Use Powerr			Wash Water (m^3/hr)	Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Weight (KG)
					Drive (HP)	Flocculation Tank (HP)	Rotary Drun Screen (HP)				
NBD- **L125**	1250	6.6 ~ 12	100 ~ 180	2 ~ 8	1/2	1/4	1/4	9.2	3339 1818 2012	1578×2286 1678×2566	1450
NBD- **L150**	1500	9.3 ~ 16	140 ~ 240	2 ~ 8	1/2	1/4	1/4	10.6	3339 2068 2012	1828×2286 1928×2566	1620
NBD- **L175**	1750	12 ~ 21	180 ~ 320	2 ~ 8	1	1/2	1/4	12.6	3386 2316 2117	2098×2286 2178×2566	1810
NBD- **L200**	2000	16 ~ 29	240 ~ 440	2 ~ 8	1	1/2	1/4	14.0	3386 2576 2317	2348×2286 2468×2566	1980

The chart above is for reference only.Sludge condition and characteristics Produce varied results.

NBD H

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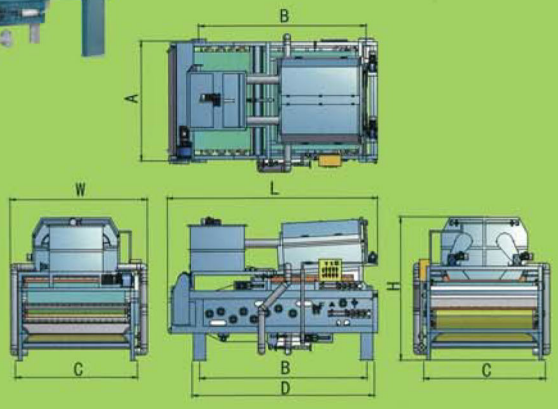


NBD-H (>1%)

Model	Capacity Parameter (M^3/hr)												Dry Sludge Parameter (kg DS/hr)														
	25	30	35	40	45	50	55	60	70	80	90	100	110	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1100
NBD- **H200**																												
NBD- **H250**																												
NBD- **H300**																												

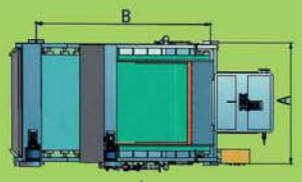
NBD-H Technical Data

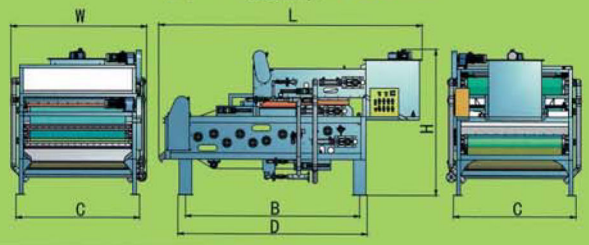
Model	Belt Width (mm)	Capacity (m^3/hr)	Dry Sludge (Kg DS/hr)	Belt Velocity (M/min)	Use Powerr			Wash Water (m^3/hr) 6 Bar	Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Weight (KG)
					Drive (HP)	Flocculation Tank (HP)	Rotary Drum Screen (HP)				
NBD-**H200**	2000	24 ~ 40	360 ~ 600	2 ~ 8	2	1/2	1/2 × 2	16.4	4269 2805 2917	2439×3400 2499×3700	3300
NBD-**H250**	2500	36 ~ 53	550 ~ 800	2 ~ 8	2	1/2	1/2 × 2	20.3	4346 3300 3153	2939×3400 2999×3700	3950
NBD-**H300**	3000	46 ~ 73	690 ~ 1100	2 ~ 8	3	1	1/2 × 2	24.2	4620 3850 3173	3472×3400 3532×3700	4600

The chart above is for reference only.Sludge condition and characteristics Produce varied results.

NBD B Product Introduce

B100~175





NBD-B (>0.4%)

Model	Capacity Parameter (M^3/hr)													Dry Sludge Parameter (kg DS/hr)												
	8	12	16	20	22	24	26	28	30	32	34	36	38	70	90	100	120	140	160	180	200	240	280	320	360	400	440	480
NBD- **B100**																												
NBD- **B125**																												
NBD- **B150**																												
NBD- **B175**																												

NBD-B100~B175 Technical Data

Model	Belt Width (mm)	Capacity (m^3/hr)	Dry Sludge (Kg DS/hr)	Belt Velocity (M/min)	Use Powerr			Wash Water (m^3/hr)	Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Weight (KG)
					Drive (HP)	Flocculation Tank (HP)	Gravity Drainage (HP)				
NBD- **B100**	1000	7 ~ 17	70 ~ 170	2 ~ 8	1/2	1/4	1/2	7.7	4043 1650 2297	1398×2780 1448×3020	1830
NBD- **B125**	1250	14 ~ 24	140 ~ 240	2 ~ 8	1/2	1/4	1/2	9.6	4043 1900 2297	1648×2780 1698×3020	2080
NBD- **B150**	1500	20 ~ 28	200 ~ 280	2 ~ 8	1/2	1/2	1/2	11.6	4193 2153 2297	1898×2780 1948×3020	2300
NBD- **B175**	1750	28 ~ 36	280 ~ 360	2 ~ 8	1	1/2	1/2	13.5	4193 2408 2297	2148×2780 2198×3020	2520

The chart above is for reference only.Sludge condition and characteristics Produce varied results.

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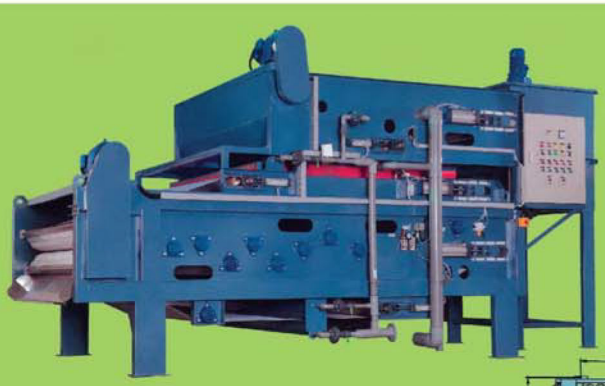
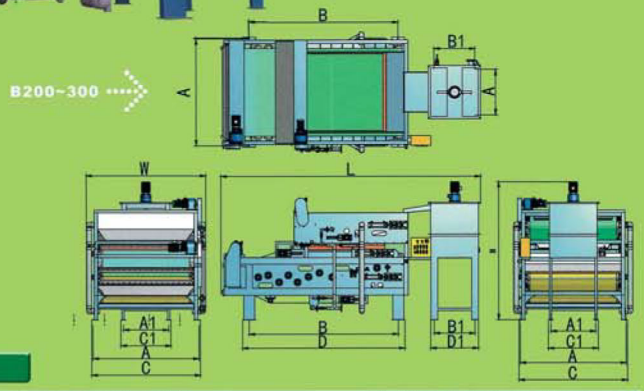




NBD-B (>0.4%)

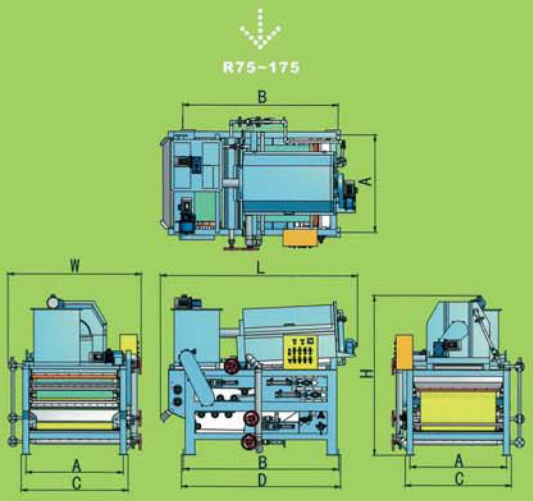
Model	Capacity Parameter (M^3/hr)												Dry Sludge Parameter (kg DS/hr)													
	10	20	25	30	35	40	50	60	70	80	90	100	110	100	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100
NBD- **B200**																												
NBD- **B250**																												
NBD- **B300**																												

NBD-B200~B300 Technical Data

Model	Belt Width (mm)	Capacity (m^3/hr)	Dry Sludge (Kg DS/hr)	Belt Velocity (M/min)	Use Powerr			Wash Water (m^3/hr)	Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Basic (A1.B1) (C1.D1)	Weight (KG)
					Drive (HP)	Flocculation Tank (HP)	Gravity Drainage (HP)					
NBD- **B200**	2000	36 ~ 60	360 ~ 600	2 ~ 8	2	1	1	15.5	5936	2439×3400	1030x 940 1150x 1100	3650
									2749	2499×3700		
									3135			
NBD- **B250**	2500	55 ~ 80	550 ~ 800	2 ~ 8	2	1	1	19.3	5936	2939×3400		4350
									3249	2999×3700		
									3135			
NBD- **B300**	3000	69 ~ 110	690 ~ 1100	2 ~ 8	3	1	1	23.2	5936	3459×3400		5100
									3769	3519×3700		
									3135			

The chart above is for reference only.Sludge condition and characteristics Produce varied results.

NBD R Product Introduce



NBD-R (>1 %)

Model	Capacity Parameter (M^3/hr)												Dry Sludge Parameter (kg DS/hr)													
	1	2	4	6	8	10	12	14	16	18	20	22	24	40	60	70	90	100	140	160	180	200	240	260	280	300	320	360
NBD- **R75**																												
NBD- **R100**																												
NBD- **R125**																												
NBD- **R150**																												
NBD- **R175**																												

NBD-R75~R175 Technical Data

Model	Belt Width (mm)	Capacity (m^3/hr)	Dry Sludge (Kg DS/hr)	Belt Velocity (M/min)	Use Powerr			Wash Water (m^3/hr)	Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Weight (KG)
					Drive (HP)	Flocculation Tank (HP)	Rotary Drum Screen (HP)				
NBD- **R75**	750	2.6 ~ 6	40 ~ 90	2 ~ 8	1/2	1/4	1/4	6.0	2600 1488 2077	1020×2050 1145×2100	990
NBD- **R100**	1000	6 ~ 9	90 ~ 140	2 ~ 8	1/2	1/4	1/4	7.5	2600 1738 2077	1270×2050 1395×2100	1220
NBD- **R125**	1250	9 ~ 13	140 ~ 200	2 ~ 8	1/2	1/4	1/4	8.9	2600 1988 2077	1520×2050 1649×2100	1490
NBD- **R150**	1500	13 ~ 18	200 ~ 280	2 ~ 8	1	1/2	1/4	10.9	3560 2265 2177	1780×2950 1850×3000	2030
NBD- **R175**	1750	18 ~ 24	280 ~ 360	2 ~ 8	1	1/2	1/4	12.3	3560 2515 2377	2030×2950 2100×3000	2260

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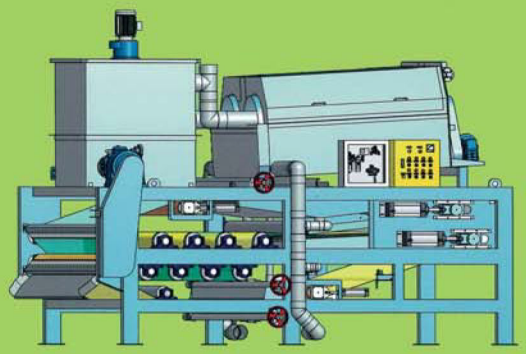
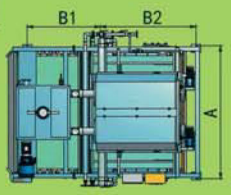
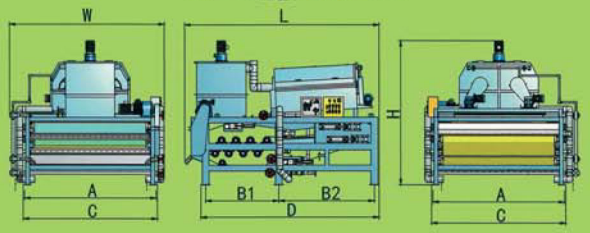


R200~300





NBD-R (>1 %)

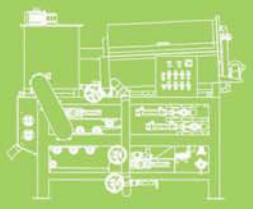
Model	Capacity Parameter (M^3/hr)													Dry Sludge Parameter (kg DS/hr)												
	8	16	24	28	32	40	42	44	46	53	68	70	73	100	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100
NBD- **R200**																												
NBD- **R250**																												
NBD- **R300**																												

NBD-R200~R300 Technical Data

Model	Belt Width (mm)	Capacity (m^3/hr)	Dry Sludge (Kg DS/hr)	Belt Velocity (M/min)	Use Powerr			Wash Water (m^3/hr)	Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Weight (KG)
					Drive (HP)	Flocculation Tank (HP)	Rotary Drum Screen (HP)				
NBD-**R200**	2000	24 ~ 40	360 ~ 600	2 ~ 8	3	1	1/2x2	15.7	4315 2973 3198	2450×1625x2125 2510×3960	3740
NBD-**R250**	2500	36 ~ 53	550 ~ 800	2 ~ 8	5	1	1/2x2	18.9	4321 3473 3198	2950×1625x2125 3010×3960	4510
NBD-**R300**	3000	46 ~ 73	690 ~ 1100	2 ~ 8	5	1	1/2x2	22.3	4545 3973 3198	3450×1625x2125 3510×3960	5280

The chart above is for reference only.Sludge condition and characteristics Produce varied results.

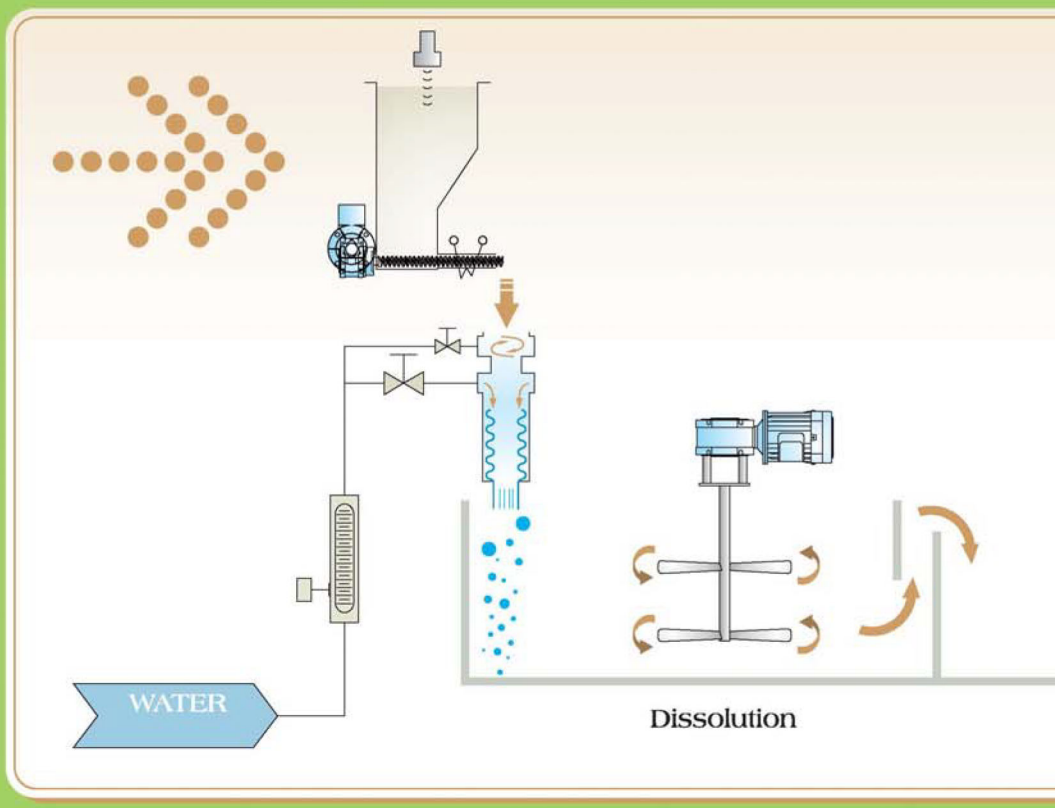
Compary Rotary drum screen with Gravity drainage



Rotary drum screen thickening components	Gravity drainage hickening components
1 Multi-angle rotary high performance device	1 Removable "V" plow
2 The drum consists of a strong filter cloth with a suitable mesh size. The drum is rotating at a low speed.	2 The water will pass through the filter cloth, while repeation plow the sludge.
3 Suitable used in high DS sludge	3 Suitable used in lower DS sludge
4 Afier treated occurs 5-8% DS	4 Afier treated occurs 5-8% DS
5 Broadly application in industrial sludge	5 Broadly application in city bio sludge

APD SERIES | AUTOMATIC POLYMER PREPARATION SYSTEMS

APD SERIES

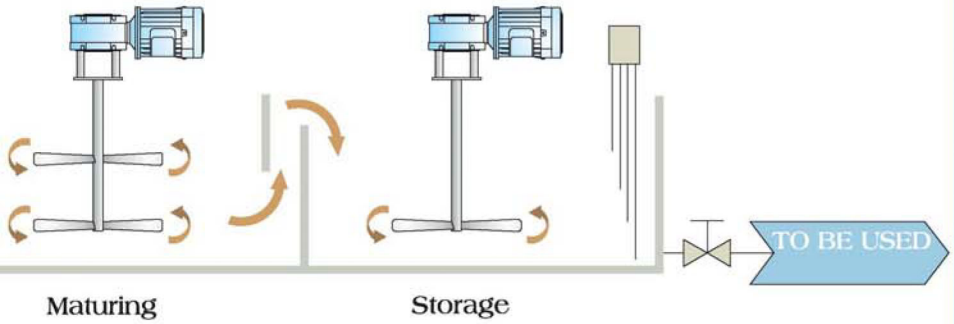


Introduction

APD-Series Automated Dry Polymer Preparation System is designed for applications such as wastewater treatment and other industrial processes. APD-Series prepares dry powder polymer into selected liquid concentrations for various process needs in order to maximize the flocculation and conglomeration of solids. It also reduces the duration of a particular process such as settling, flotation, or dewatering.

APD-Series Automated Dry Polymer Preparation System has no limits in whether municipal or industrial wastewater treatment applications, unit processes such as settling, flotation, dewatering, petrochemical, sulfonation, electroplating, and pulp & paper and others etc.

Flow Sheet

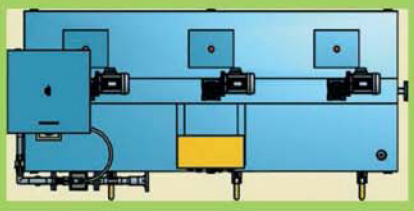


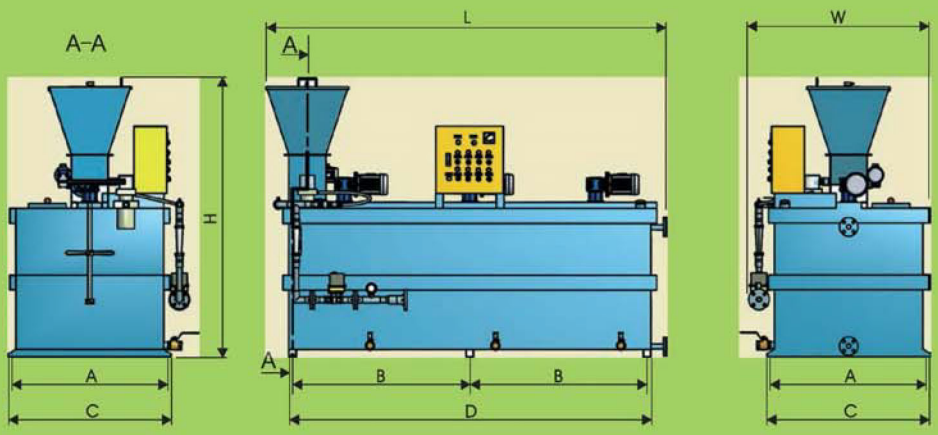
Features

1. All 304 SS construction along with corrosion resistant materials such as PVC. PP.
2. Automated operation assuring consistent output and minimum O&M costs.
3. PLC controller to increase reliability and ease of operation.
4. Widely adjustable concentration range (0.1%~ 0.4%).
5. Covered hopper along with power level monitoring assuring reliable and consistent results.
6. Innovative wetting assembly assuring zero gelling potential.
7. Heated conveyor to prevent gelling potential around metering screw.
8. Comprehensive local control panel indicating operating status.
9. Multi-tank design for flash mixing, aging, and storage needs.

APD

Automatic Polymer Preparation Systems

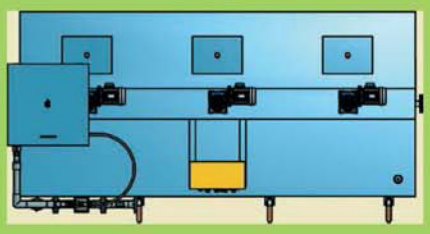


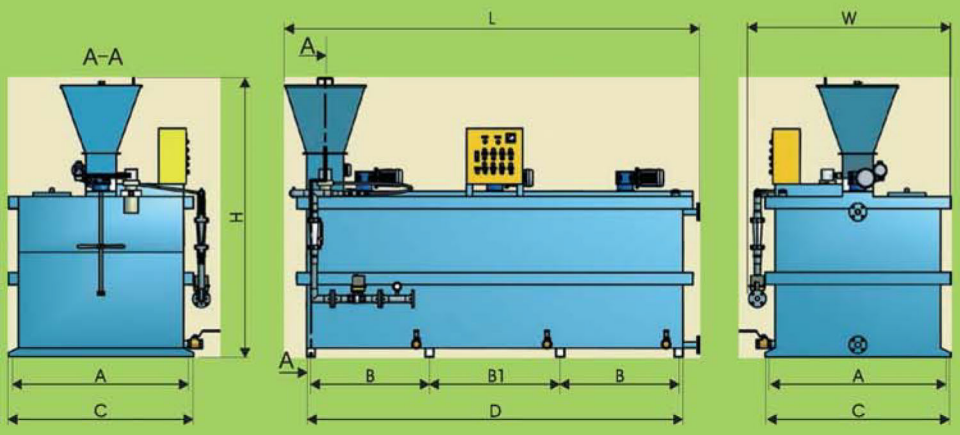


APD- 500~2000 Technical Data

Model	Capacity (L/hr)	Storage Hopper (L)	Use Power				Dimensions (L.W.H) mm	Basic (A.B) (C.D) mm	Weight (KG)
			Screw (HP)	Dissolution (HP)	Maturing (HP)	Storage (HP)			
APD-500	500	50	1/4	1/3	1/3	1/3	1880 795 1505	650x825 700x1700	340
APD-1000	1000	50	1/4	1/3	1/3	1/3	2198 1020 1605	850x984 900x2018	450
APD-1500	1500	50	1/4	1/2	1/2	1/2	2408 1020 1753	850x1089 900x2228	570
APD-2000	2000	80	1/4	1/2	1/2	1/2	2695 1225 1875	1050x1195 1100x2440	720

※ customize according to dimensions





APD- 3000~10000 Technical Data

Model	Capacity (L/hr)	Storage Hopper (L)	Use Power				Dimensions (L.W.H) mm	Basic (A.B. B1) (C.D) mm	Weight (KG)
			Screw (HP)	Dissolution (HP)	Maturing (HP)	Storage (HP)			
APD-3000	3000	80	1/4	1/2	1/2	1/2	2975 1210 2075	1050x860x950 1100x2720	980
APD-5000	5000	120	1/4	1	1	1	3360 1635 2260	1420x960x1060 1500x3050	1280
APD-7000	7000	120	1/4	1	1	1	3750 1820 2262	1605x1100x1170 1685x3440	1650
APD-10000	10000	160	1/4	2	2	2	4675 1820 2667	1605x1380x1480 1685x4340	2150

※ customize according to dimensions

Prod

1. MAXXFIL FILTER PRESS
2. MAXXFIL BELT PRESS
3. MAXXFIL POLYMER PREPAR
4. VERDER AIR DIAPHRAGM P
5. SYDEX PUMP
6. KEMPION METERING PUMP
7. KLINKAU PLATE
8. FUGAFIL SARAN FILTER CL
9. PUMP PARTS

lucts

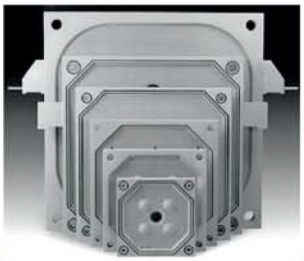
9

Eccentric screw pumps

Air-Operated Diaphragm Pumps

8

7



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