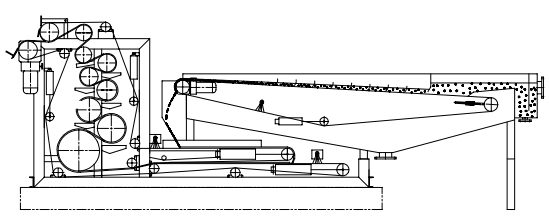
INTRODUCTION

The sludge line in a civil or industrial sewage treatment plant is important and has management costs that sometimes are the same as those for the water line. It is therefore very important to be able to thicken the sludge before conveying it to the subsequent treatment cycles and free it as much as possible from the water before the final disposal.

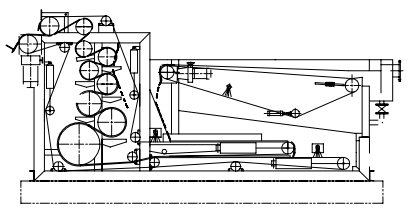
Our belt press offers complete solution for various sludge types, from low concentration to thickened sludge. Integrated thickening and dewatering systems provide reliable separation results.

DNY TYPE



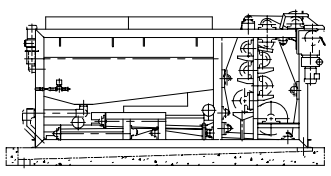
- Integrated design with gravity thickener
- High reliable performance under heavy duty
- Higher sludge cake dumping, enough space for conveyor
- Gravity thickener's length up to 4 meters, suit for low concentrate sludge,
- Water ratio can be up to 99.5%

DNYA TYPE



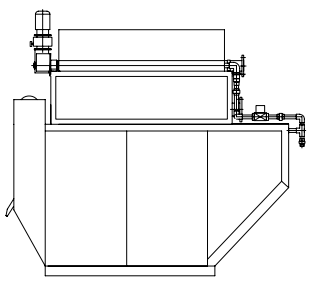
- Design with gravity belt thickener
- More Compact, save more space and money
- Higher sludge cake dumping, enough space for conveyor
- Competent for low concentrate sludge, water ratio can be up to 99.2%

TDY TYPE



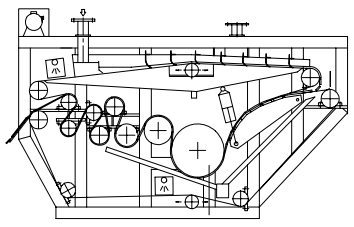
- Use rotating drum thickener, save more space and money
- Reliable thickening performance, lower malfunction rate
- Intermission backwash design save more water
- No need to replace the filtrate cloth in the rotating drum
- Easy to expanding the treatment capacity by adding additional rotating drum
- Competent for low concentrate sludge, water ratio can be up to 99%

TDYB TYPE



- Use rotating drum thickener, save more space and money
- Reliable thickening performance, lower malfunction rate
- Intermission backwash design save more water
- No need to replace the filtrate cloth in the rotating drum
- With full-body shield, easy for odor treatment
- Water ratio can be up to 99%, design for small scale sludge treatment

DYB TYPE



- Optimized structure, reliable dewatering performance
- With removable full-body shield, easy for maintenance and odor treatment
- Compact design with full function, save your land and money
- Water ratio can be up to 98%

GENERAL PERFORMANCE

Type of sludge	DS Concentration	Treatment Capacity	Solid Output	Sludge Cake Water Ration	Polymer Dosing Ratio
	Percentage (%)	m^3/h per meter belt width	kg/h per meter belt width	Percentage (%)	kg per ton DS
Waste Sludge	0.7～1.5	15～30	200～400	≤82	2～5
Thickened Waste Sludge	2 ～ 4	6～12	200～450	≤82	
Digested Sludge	3 – 6	7～15	300～800	≤80	
Primary Sludge	0.8～2.0	18～35	300～500	≤80	
Thickened Primary Sludge	3 ～ 5	6～12	300～600	≤80	
Paper Industrial Sludge	0.5～2.5	15～35	200～800	≤78	3～7
Dyeing Industrial Sludge	1～3	10～25	180～350	75～85	3～10

Note:
(1) The performance is based on the study of the DNY, DNYA, TDY and TDYB Types only. Please find the DYB Type performance in the DYB introduction page.
(2) DS: Dry Solids.

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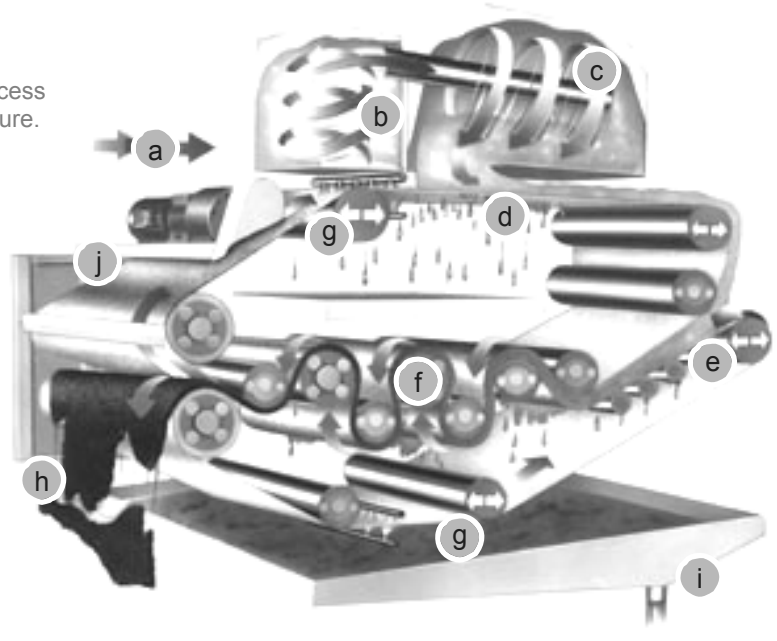
STRUCTURE DESCRIPTION

Note:
The figure is used here for showing the treatment process only. Actual machine structure is different from this figure.



a Sludge Thickening

In order to control the cost and sludge quantity, the waste sludge from waste water treatment plant is thickened by the gravity settlement tank before being transferred to the dewatering system.

b Sludge Conditioning

By dosing the PAM and provide flocculation mixing, the physical and chemical character of the sludge solid could be changed to reduce the affinity between the sludge and water and increase the agglomeration force of the sludge for improving the effect of dewatering.

c Rotary Drum Dewatering

Provide rotary filter screening and rotation mixing , a lot of free sludge water would be separated from the gap water

d Gravity Belt Thickening

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

e Compression Dewatering

The sludge is carried into compression dewatering section gradually and compressed wedge-shapedly.

f Shear Dewatering

Use S type rollers to remove the free water in the sludge and form the sludge cake by the shear force.

g Tracking System

Filter tracking system with auto alignment and tension adjustment

h Cake Removal

The cake is scraped off by the blade for further disposal or recycling

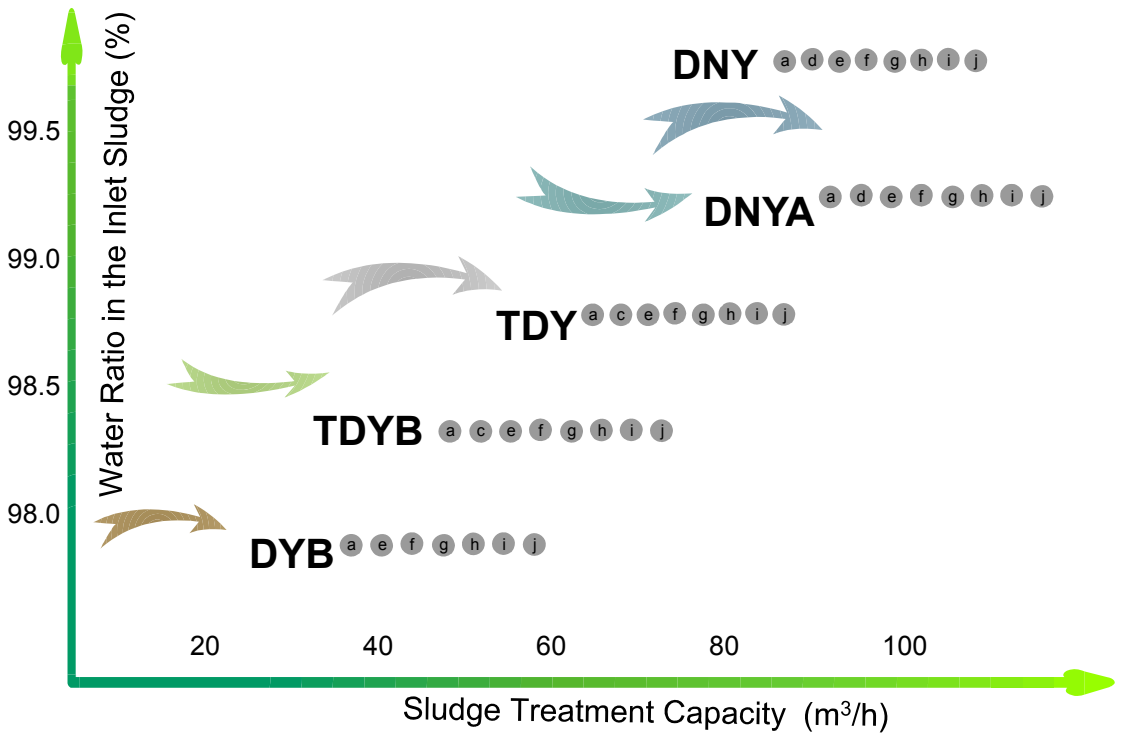
i Filtrate Trays

Integrated trays gather filtrate for further treatment.

j Frame & Structure

Various materials and colors are available for customized request

FEATURE MATRIX



Note:
(1) The features showed in this figure are based on the municipal sludge dewatering application.
(2) Please contact us for more detailed information.

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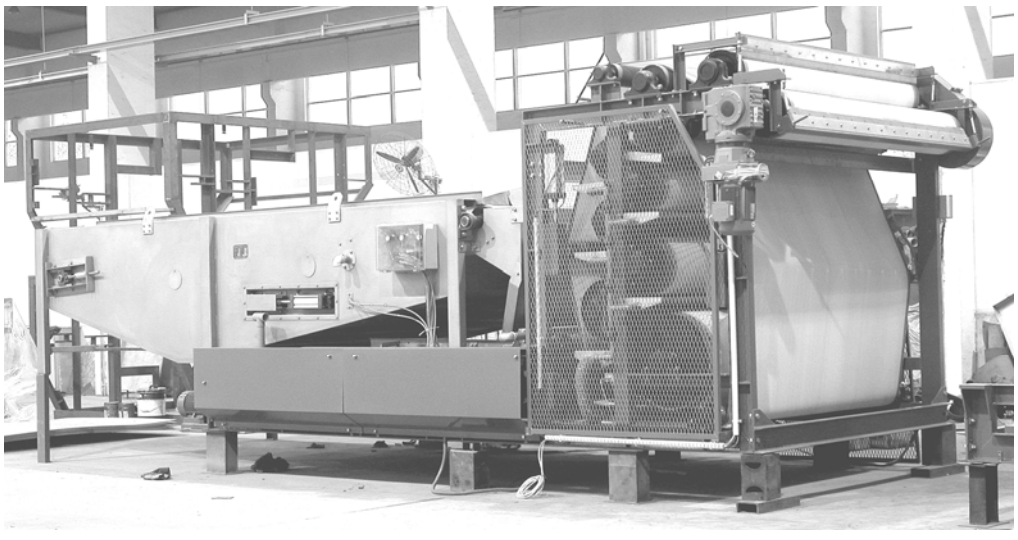
DNY

BELT PRESS WITH GRAVITY THICKENER

- Integrated design with gravity thickener
- High reliable performance under heavy duty
- Comfortable operating height, easy for maintenance
- Higher sludge cake dumping, enough space for conveyor
- Gravity thickener's length up to 4 meters, suit for low concentrate sludge, water ratio can be up to 99.5%



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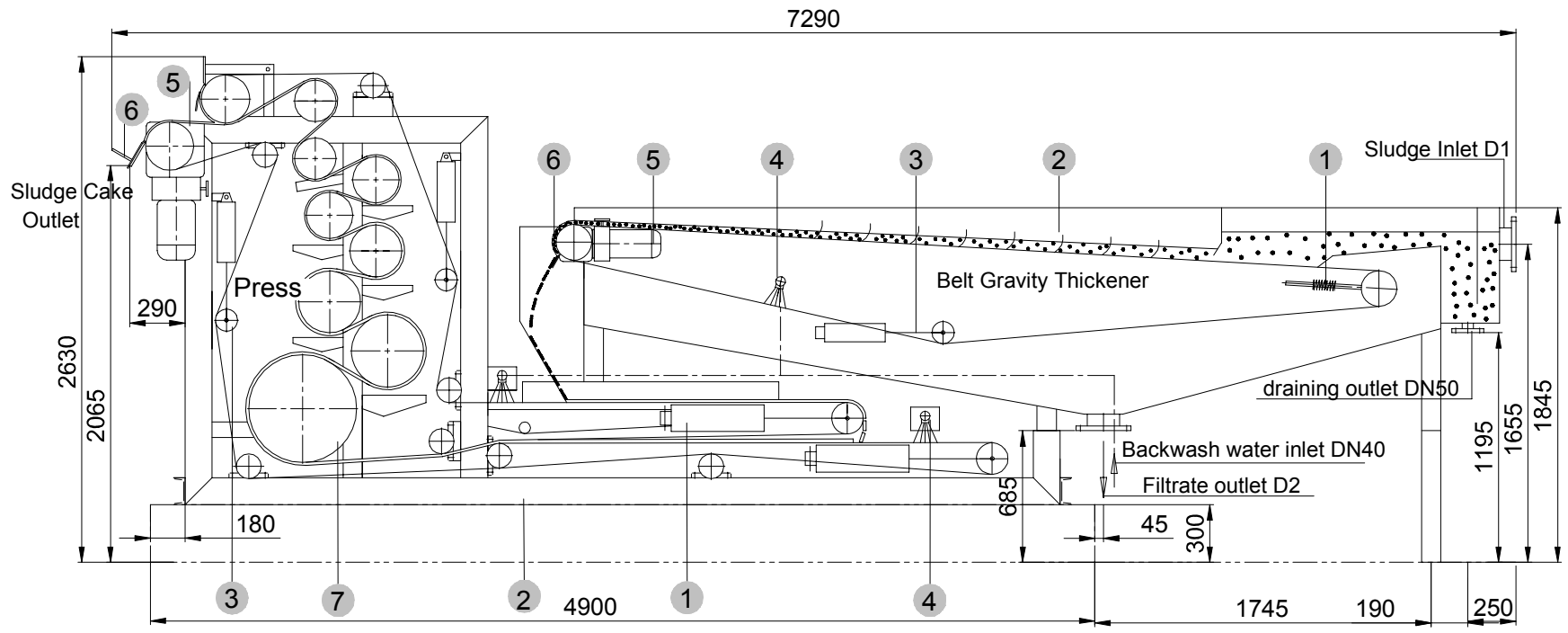

SPECIFICATION

Model	Unit	DNY1000	DNY1500	DNY2000	DNY2500	DNY3000
Belt Width	mm	1000	1500	2000	2500	3000
Belt Speed	m/min	Thickener: 4.5～22, Press: 1.3～6.5				
Motor Power	kw	0.75+1.1	0.75+1.5	0.75+2.2	0.75+2.2	1.1+3.0
Backwash Water Pressure	MPa	≥0.5				
Backwash Water Flux	m^3/h	9～15	12～18	15～25	20～30	25～36
Net Weight	kg	5500	7200	8000	9200	10500
Loaded Weight	kg	5700	7500	8500	9850	11250
Dimensions (Length×Width×Height)	mm	7290×1850×2325	7290×2350×2325	7290×2850×2325	7290×3400×2325	7290×3900×2325

FOUNDATION REQUIREMENTS

Model	DNY1000	DNY1500	DNY2000	DNY2500	DNY3000
Inlet D1 (DN, mm)	100	150	150	150	200
Filtrate Outlet D2 (DN, mm)	100	2×100	2×150	2×150	2×150
Load F (N)	8000	12000	14000	15000	18000
Load F1 (N)	5000	6000	7000	8500	10000

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DNYA

BELT PRESS WITH GRAVITY THICKENER

- Design with gravity belt thickener
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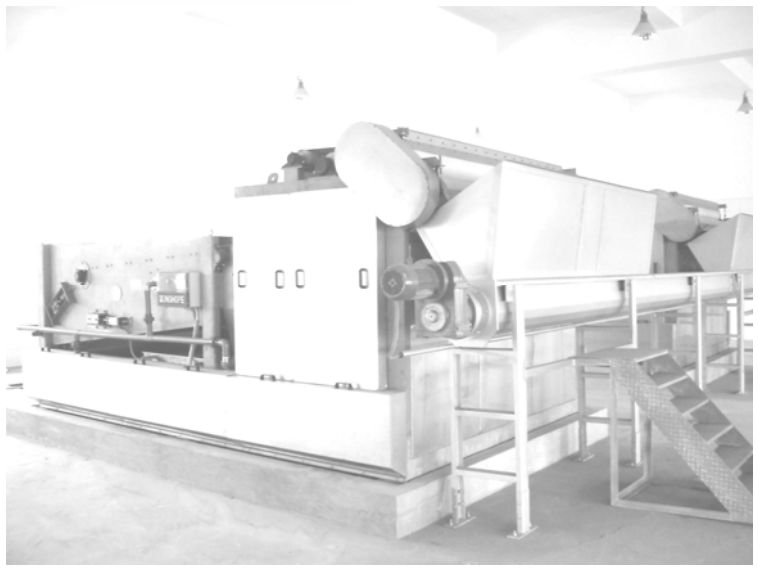

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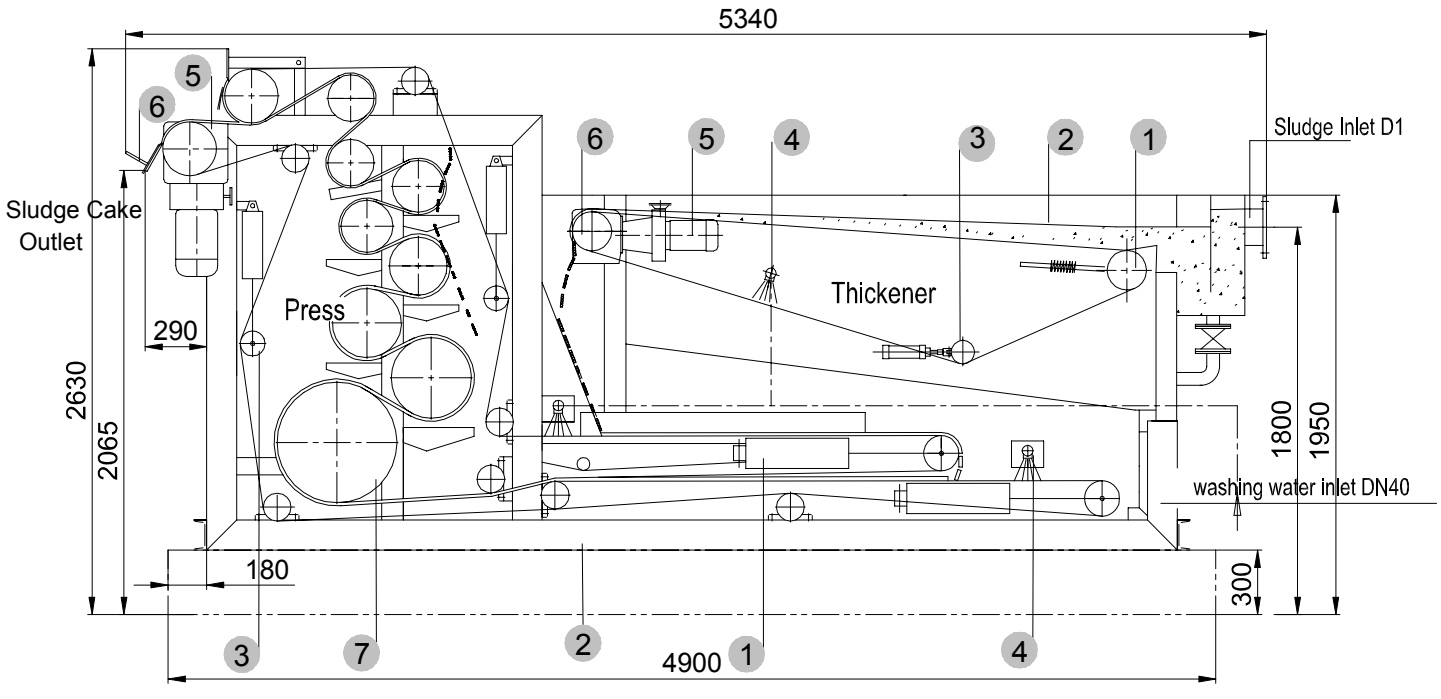

LEGEND

1 Belt Tension System
2 Frame
3 Tracking System
4 Backwash Nozzle
5 Motor
6 Scrapers
7 Roller

SPECIFICATION

Model	Unit	DNY1000A	DNY1500A	DNY2000A	DNY2500A	DNY3000A
Belt Width	mm	1000	1500	2000	2500	3000
Belt Speed	m/min	Gravity Thickener: 3.6 -18, Belt Press:1.3 - 6.5				
Motor Power	kw	0.75+1.1	0.75+1.5	0.75+2.2	0.75+2.2	1.1+3.0
Backwash Water Pressure	MPa	**≥0.5**				
Backwash Water Flux	m^3/h	9～15	12～18	15～25	20～30	25～36
Net Weight	kg	5200	6850	7500	8700	9800
Loaded Weight	kg	5600	7300	8100	9450	10700
Dimensions (Length×Width×Height)	mm	5340×1850×2325	5340×2350×2325	5340×2850×2325	5340×3400×2325	5340×3900×2325

FOUNDATION REQUIREMENTS

Model	DNY1000A	DNY1500A	DNY2000A	DNY2500A	DNY3000A
Inlet D1 (DN,mm)	100	150	150	150	200
Load F1 (N)	10000	12500	14000	16000	18000

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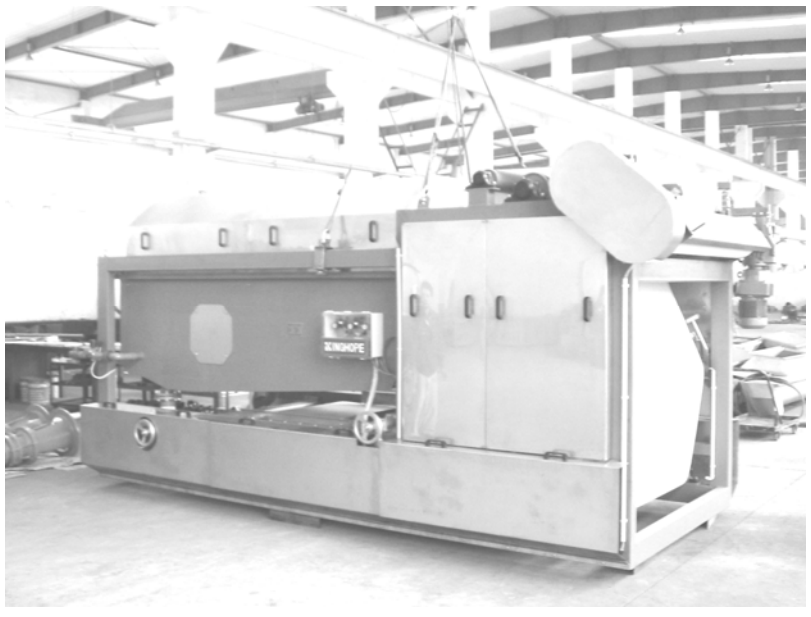
TDY

BELT PRESS WITH ROTARY DRUM THICKENER

- Use rotating drum thickener, save more space and money
- Reliable thickening performance, lower malfunction rate
- Intermission backwash design save more water
- No need to replace the filtrate cloth in the rotating drum
- Easy to expanding the treatment capacity by adding additional rotating drum
- Competent for low concentrate sludge, water ratio can be up to 99%



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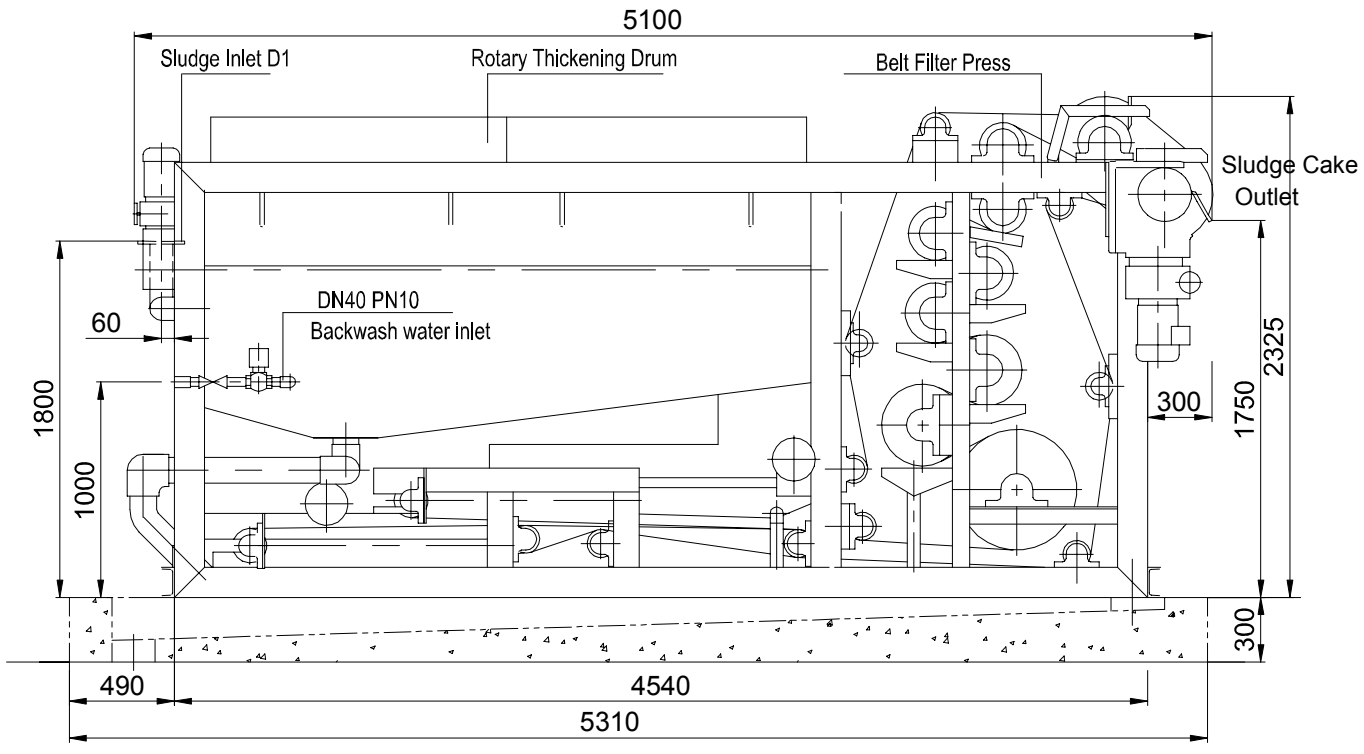

SPECIFICATION

Model	Unit	TDY1000	TDY1500	TDY2000	TDY2500
Belt Width	mm	1000	1500	2000	2500
Belt Speed	m/min	1.3～6.5			
Drum Diameter	mm	850	1050	1150	1250
Drum Rotate Speed	rpm	1.8～9.0			
Motor Power (kW)	kw	0.55+1.1	0.55+1.5	0.55+2.2	0.55+2.2
Backwash Water Pressure	MPa	≥0.5			
Backwash Water Flux	m^3/h	10～12	15～18	18～22	22～25
Net Weight	kg	4500	5900	7400	8900
Loaded Weight	kg	5000	6700	8500	10300
Dimensions (Length×Width×Height)	mm	5100X1850X2325	5100X2350X2325	5100X2850X2325	5100X3350X2325

FOUNDATION REQUIREMENTS

Model	TDY1000	TDY1500	TDY2000	TDY2500
Inlet D1 (DN,mm)	**100**	**100**	**150**	**150**
Load F1 (N)	**850**	**11000**	**14500**	**17500**

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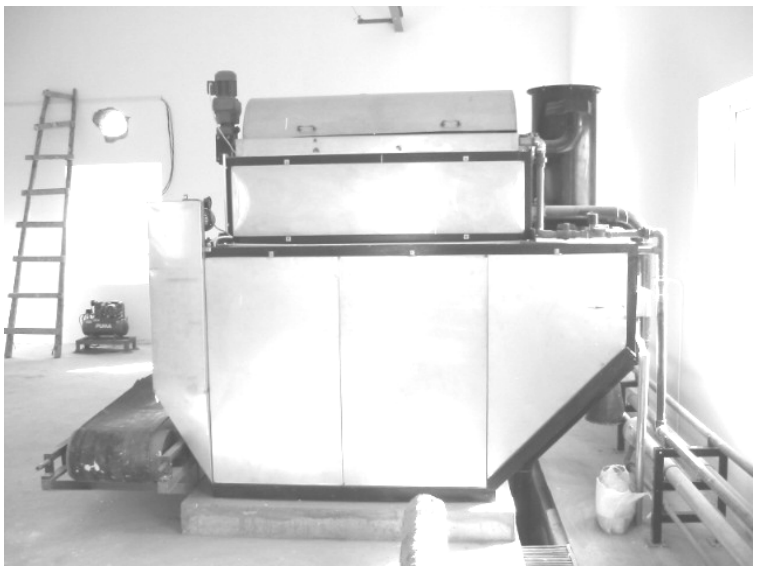
TDYB

SHIELDED BELT PRESS WITH ROTARY DRUM THICKENER

- Use rotating drum thickener, save more space and money
- Reliable thickening performance, lower malfunction rate
- Intermission backwash design save more water
- No need to replace the filtrate cloth in the rotating drum
- With full-body shield, easy for odor treatment
- Water ratio can be up to 99%, design for small scale sludge treatment



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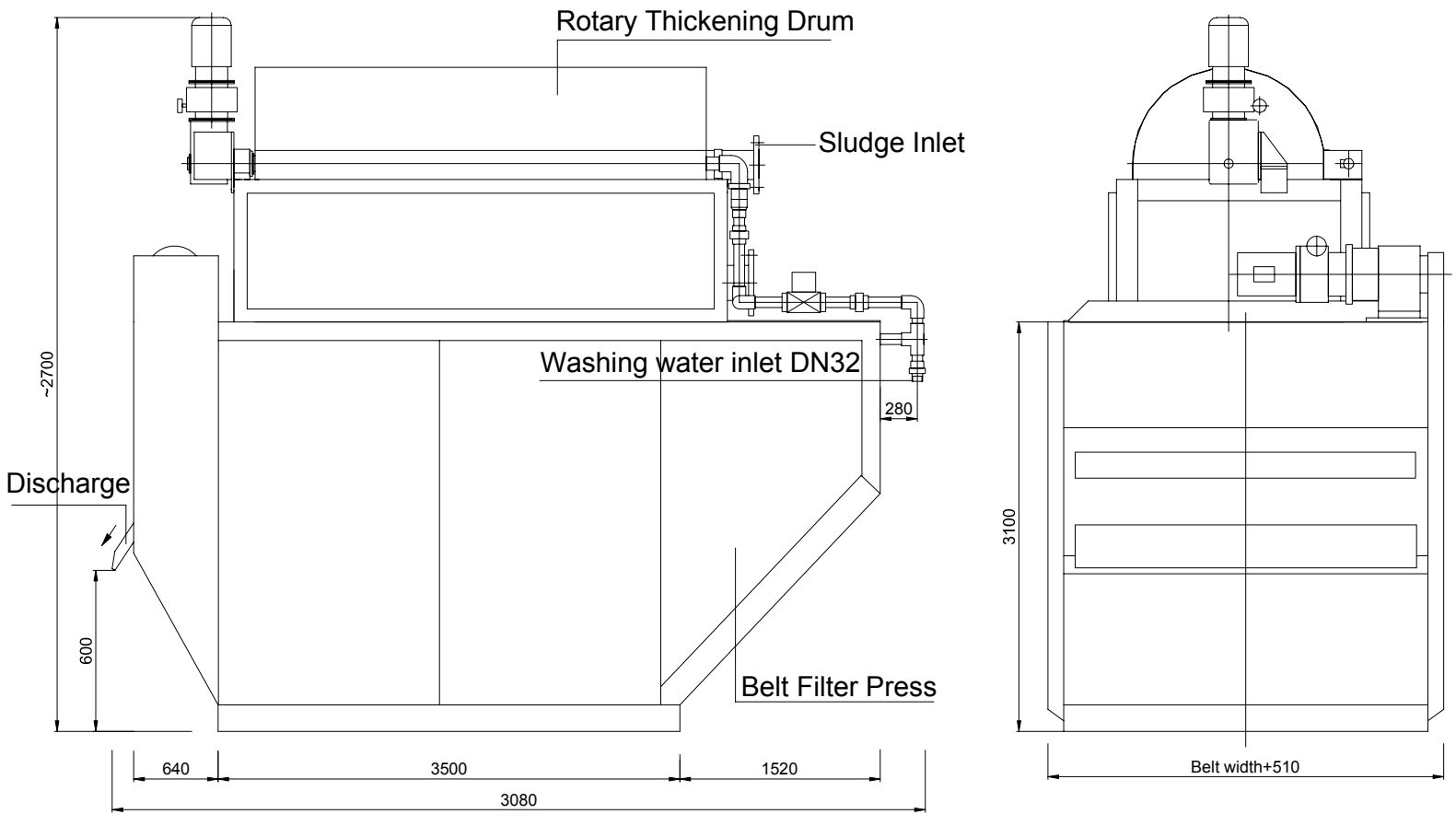

SPECIFICATION

Model	Unit	TDYB600	TDYB1000	TDYB1500	TDYB2000
Belt Width	mm	600	1000	1500	2000
Belt Speed	m/min	1.0～5.0			
Drum Diameter	mm	650	650	800	1000
Drum Rotate Speed	rpm	1.8～9.0			
Motor Power (kW)	kw	0.55+1.1	0.55+1.1	0.75+1.5	0.75+1.5
Backwash Water Pressure	MPa	≥0.5			
Backwash Water Flux	m^3/h	7～9	9～12	12～15	15～18
Net Weight	kg	2850	3900	4900	5900
Loaded Weight	kg	3500	4700	5800	6900
Dimensions (Length×Width×Height)	mm	2950X1110X2700	2950X1510X2900	2950X2010X3050	2950X2510X3200

FOUNDATION REQUIREMENTS

Model	TDY1000	TDY1500	TDY2000	TDY2500
Inlet D1 (DN,mm)	**100**	**100**	**150**	**150**
Load F1 (N)	**850**	**11000**	**14500**	**17500**

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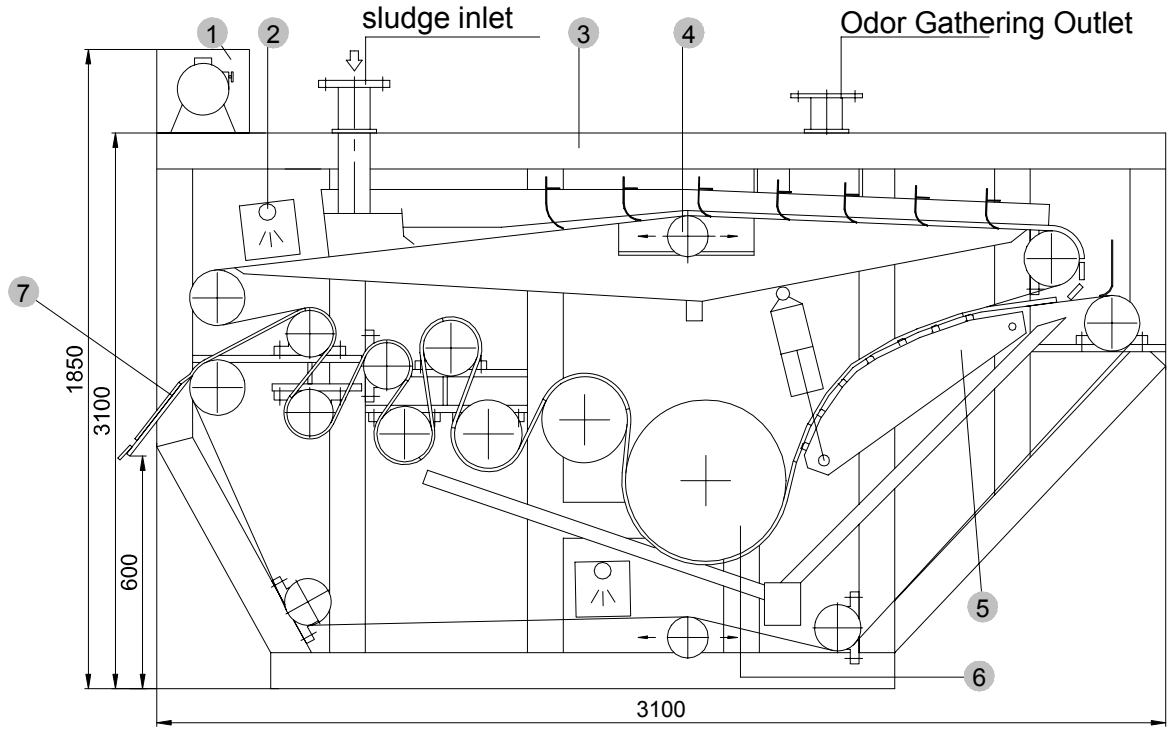
DYB

SHIELDED BELT PRESS

- Optimized structure, reliable dewatering performance
- With removable full-body shield, easy for maintenance and odor treatment
- Compact design with full function, save your land and money
- Water ratio can be up to 98%

DIMENSION



LEGEND

1 Motor
2 Backwash Nozzle
3 Frame
4 Tracking System
5 Belt Tension System
6 Roller
7 Scrapers

SPECIFICATION

Model	Unit	DYB600	DYB1000	DYB1500	DYB2000	DYB2500
Belt Width	mm	600	1000	1500	2000	2500
Belt Speed	m/min	1.0～5.0				
Motor Power (kW)	kw	1.1	1.1	1.5	1.5	2.2
Backwash Water Pressure	MPa	3～5	6～10	9～15	12～20	15～25
Backwash Water Flux	m^3/h	≥0.5				
Net Weight	kg	2500	3500	4500	5500	7000
Loaded Weight	kg	2800	4000	5250	6500	8250
Dimensions (Length×Width×Height)	mm	32500X1110X1850	3250X1510X1850	3250X2010X1850	3250X2510X1850	3250X3010X1850

FOUNDATION REQUIREMENTS

Model	DYB600	DYB1000	DYB1500	DYB2000	DYB2500
Sludge Inlet D1	DN65	DN80	DN80	DN100	DN100
Backwash Water Inlet D2	DN32	DN32	DN32	DN32	DN32
Filtrate Outlet D3	DN100	DN150	DN150	DN200	DN200
Odor Gathering Outlet D4	DN100	DN150	DN150	DN200	DN200
Load F (N)	7000	10000	13500	16500	21000

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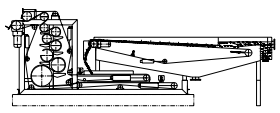
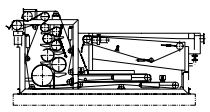
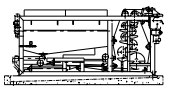
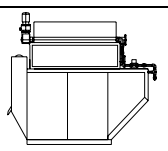
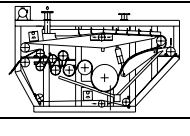
DNY	DNYA	TDY	TDYB
			

THICKENING & DEWATERING PERFORMANCE

Type of sludge	DS Concentration	Treatment Capacity	Solid Output	Water Ration in the Sludge Cake	Polymer Dosing Ratio
	Percentage (%)	m^3/h per meter belt width	kg/h per meter belt width	Percentage (%)	kg per ton DS
Waste Sludge	0.7～1.5	15～30	200～400	≤82	2～5
Thickened Waste Sludge	2 ～ 4	6～12	200～450	≤82	
Digested Sludge	3 – 6	7～15	300～800	≤80	
Primary Sludge	0.8～2.0	18～35	300～500	≤80	
Thickened Primary Sludge	3 ～ 5	6～12	300～600	≤80	
Paper Industrial Sludge	0.5～2.5	15～35	200～800	≤78	3～7
Dyeing Industrial Sludge	1～3	10～25	180～350	75～85	3～10

RELATED EQUIPMENT & UTILITY REQUIREMENT

Model	**DNY1000 / DNY**1000A TDY1000	**DNY1500 / DNY**1500A TDY1500	**DNY2000 / DNY**2000A TDY2000	**DNY2500 / DNY**2500A TDY2500	**DNY3000 / DNY**3000A TDY3000
Sludge Pump	**10**～30 m^3/h	**15**～40 m^3/h	**20**～50 m^3/h	**25**～60 m^3/h	**30**～75 m^3/h
Backwash Pump	**10**～15 m^3/h	**15**～20 m^3/h	**20**～30 m^3/h	**30**～40 m^3/h	**40**～50 m^3/h
Backwash Pump Head	≥0.5MPa				
Dosing System Model	PT958	PT1340	PT1340	PT1340	PT2660
Water for Preparing PAM	1500 L/h	2000 L/h	3000 L/h	3500 L/h	4500 L/h
Polymer Dosing Pump	750 L/h	1000 L/h	1250 L/h	1500 L/h	2000 L/h
Compressed Air	～95 L/min, 0.7 MPa				
Conveyor	1800 kg/h	2500 kg/h	3000 kg/h	3500 kg/h	4000 kg/h

DYB


DEWATERING PERFORMANCE

Type of sludge	DS Concentration	Treatment Capacity	Solid Output	Water Ration in the Sludge Cake	Polymer Dosing Ratio
	Percentage (%)	m^3/h per meter belt width	kg/h per meter belt width	Percentage (%)	kg per ton DS
Digested sludge	2～ 6	5～8	100～350	≤80	2～5
Municipal Waste Sludge	1.5～3	4～7	80～180	≤80	3～8
Food & Beverage Sludge	1.5～2.5	3～5	50～150	≤85	4～10
Dyeing Industrial Sludge	1.5～2.5	2～5	50～150	≤85	5～10
Paper Industrial Sludge	2～5	5～8.5	120～400	≤75	5～8.5

RELATED EQUIPMENT & UTILITY REQUIREMENT

Model	DYB600	DYB1000	DYB1500	DYB2000	DYB2500
Sludge Pump	**2**～5 m^3/h	**3**～9 m^3/h	**5**～12 m^3/h	**7**～18 m^3/h	**8**～24 m^3/h
Backwash Pump	**4**～6 m^3/h	**6**～10 m^3/h	**9**～15 m^3/h	**12**～20 m^3/h	**15**～25 m^3/h
Backwash Pump Head	≥ 0.5 MPa				
Polymer Dosing Pump	300 L/h	600 L/h	800 L/h	1000 L/h	1200 L/h
Compressed Air	95 L/min, 0.7 MPa				
Conveyor	800 kg/h	1500 kg/h	2250 kg/h	3000 kg/h	3750 kg/h

PACT WATER & WASTEWATER TREATMENT EQUIPMENT
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