



PUSHER CENTRIFUGE SERIES



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Introduction

Pusher Centrifuge

Pusher centrifuge is a type of filtration technique that offers continuous operation to de-water and wash materials such as relatively in-compressible feed solids, freedraining crystalline, polymers and fibrous substances. It consists of a constant speed rotor and is fixed to one of several baskets. This assembly is applied with centrifugal force that is generated mechanically for smaller units and hydraulically for larger units to enable separation.

A suspension feed enters the process to undergo pre-acceleration and distribution. The subsequent processes involve main filtration and intermediate de-watering, after which the main filtrate is collected. Wash liquid enters the washing step and final de-watering follows. Wash filtrate is extracted from these two stages. The final step involves discharge of solids which are then collected as the finished product. These process steps take place simultaneously in different parts of the centrifuge.

Pusher centrifuges are mainly used in chemical, pharmaceutical, food (mainly to produce sodium chloride as common salt) and mineral industries. It is widely accepted due to its ease of modification, such as gas-tight and explosion protection configurations.

Advantages of Pusher Centrifuge

- Pushers offer higher processing capacities than batch filtering centrifuges such as vertical basket and inverting filter.
- Provides the best washing characteristics of any continuous centrifuge due to control of retention time and uniform cake bed.
- Gentle handling makes pushers better suited for fragile crystals.



Typical Application



ORGANIC INTERMEDIATES

- Paraxylene
- Adipic acid, Oxalic acid
- Caprolactam

FOOD INDUSTRY

- Monosodium glutamate
- Lysine and saccharin
- Salt

PLASTIC INDUSTRY

- Polyethylene and polypropylene

CHEMISTRY / PHARMACEUTICAL

- Ammonium bicarbonate, Ammonium chloride, Ammonium sulfate
- Sodium sulfate, Potassium sulfate, Manganese sulfate, ferrous sulfate
- Sodium chloride, Sodium cyanide
- Nickel sulfate
- Nitrocellulose
- Fermentation broths / Industrial biotechnology

OTHER

- Peel cotton testa

Pusher Centrifuge Series

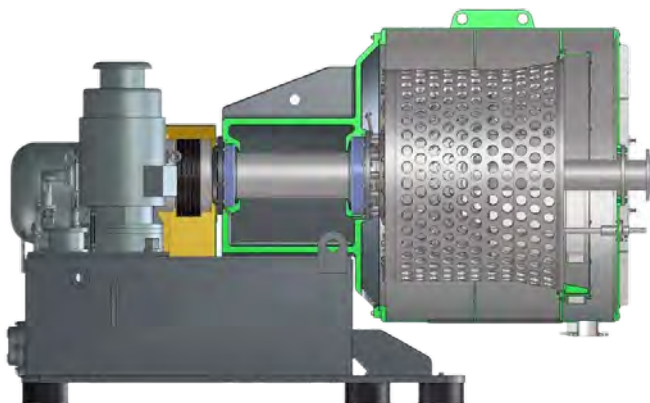
Series Single-stage Pusher centrifuge

Parm/Model		DTL 800	DTL 1200
Basket	Diameter (mm)	800	1200
	Length of filtering area (mm)	400	500
	Rotation speed (r/min)	700/800/900	500/650
	Separator factor	220/287/363	170/284
	Max loading (kg)	70	130
Length of pusher (mm)		40	50
Frequency of pusher (L/min)		40	30
Main motor power (kw)		18.5	30
Pump motor power (kw)		11	22
Hydraulic pressure system Operating pressure (MPa)		2.0~3.0	2.0~3.0
Gross weight (kg)		4000	7700
External Dimension L*W*H (mm)		2270*1780*1400	3165*2119*1912

Filter Centrifuge Cataloge

DTL Series - Single pusher centrifuge

DTL Series can be used for separating the suspension with solid phase particle size of more than 0.1mm and with the concentration of over 40%. They are suitable for chemical industry, fertilizer, manufacturing salt and alkali, especially suitable for the solid-liquid separation of ammonium bicarbonate, ammonium chloride, mirabilite, etc.



Pusher Centrifuge Series

Series

Two-stage Pusher centrifuge

Parm/Model		STL 400	STL 500	STL 630	STL 800
Basket	Diameter (mm)	337/400	438/500	560/630	720/800
	Length of filtering area (mm)	145/155	180/180	240/320	240/320
	Rotation speed (r/min)	500-2200	1200-2000	1000-1800	800-1600
	Separator factor	503-1083	402-1120	350-1142	286-1145
Length of pusher (mm)		40	50	50	50
Frequency of pusher (L/min)		30-80	30-80	30-80	30-80
Main motor power (kw)		11	30-45	37-55	55-75
Pump motor power (kw)		4	15	50	37
Production capacity (t/h)		1-8~3.0	5-15	8-25	15-40
Gross weight (kg)		2480	3100	4100	7000
External Dimension L*W*H (mm)		2460*1286*1030	2750*1480*1290	3690*1600*1265	3700*1800*1450

Pusher Centrifuge Cataloge

STL Series - Two-stage pusher centrifuge

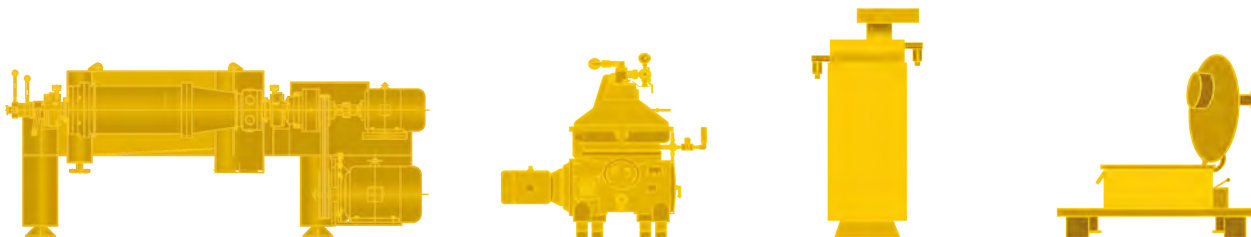
STL Series is suitable for separating the suspension with solid particle size of more than 0.05mm and with the concentration of over 40%. It was widely used in chemical industry industry, fertilizer, manufacturing salt and alkali, especially suitable for the solid-liquid separation of ammonium bicarbonate, ammonium chloride, mirabilite, ammonium bicarbonate, sodium sulfate etc.





CATALOGUE

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