



# AHP Heli-Pulper

## Most Advanced High Consistency Pulper

The Heli-Pulper produces superior defibering by the friction between fibers at high consistency, about 15%. In a deink plant, it is required to defiber completely, separate inks from fibers and disperse the inks into a proper size for floatation. It is, however, important to avoid crushing foreign materials. In order to achieve both these purposes, the first High Consistency Pulper with a Helical Rotor design was developed by Aikawa, which is now a common part of many new deink plants throughout the world.

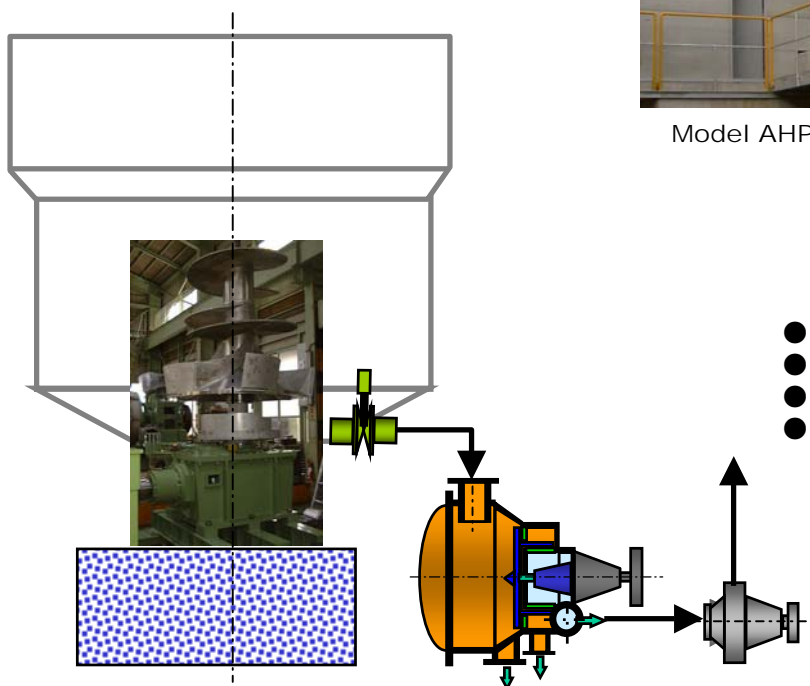
Benefits;

1. Superior defibering at consistencies ranging from 1 to 18%;
2. Excellent separation of inks, binders, etc. by combining mechanical friction with appropriate chemical action;
3. Most efficient separation of fibers and impurities such as plastics and stickies without breaking.
4. Less floor space, Less initial and running costs;
5. Less maintenance costs;

## FEATURES AND BENEFITS



Model AHP-70 with a Dumping Screen PEA1800

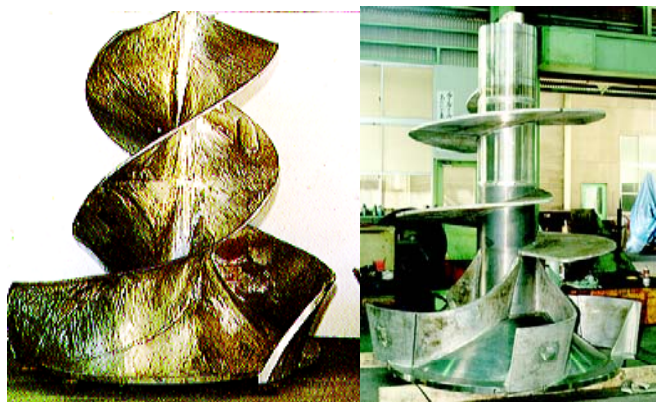


## Applications

- Pulping of Recycled paper to be Deinked
- Pulping of Various Market Pulp Sheet.
- Pulping of Poly-Coated Grades
- Pulping of Magazine, Mixed Waste Paper

# AHP, High Consistency Pulper

Rotor Configuration: Screw Type and Disc Type



## ADVANTAGES

Rotor Configuration:

There are two types of rotor, Screw Type and Disc Type. The Screw Type is old one and the Disc Type is the most advanced rotor.

The Disc Type's advantages are;

1. Reduces absorbed power;  
About 30% less than old model as shown on the table mentioned below.
2. Less Contaminants cutting effect;  
Reduces shocks or sharing effect between rotor blade and stock, resulting in less breaking up of contaminants.

	Pulper	Cons.	Production Rate T/D	Screw Model	Disc Model	Energy Saving	Power Consumption
A-Mill	30m <sup>3</sup>	15%	216	470KW	335KW	30%	26KWH/Ton
B-Mill	35m <sup>3</sup>	17%	285	617KW	427KW	31%	25KWH/Ton
C-Mill	50m <sup>3</sup>	15%	360	640KW	500KW	22%	23KWH/Ton
D-Mill	70m <sup>3</sup>	15%	504	-	560KW		18KWH/Ton
E-Mill	100m <sup>3</sup>	15%	720	-	760KW		17KWH/Ton

Standard Specification & Capacity of AHP Heli-Pulper

Model	m <sup>3</sup>	Tub Diameter	Total Height	Rotor Diameter	Rotor Height	Blade Number	Installed Motor	Capacity 48 Cycles	Capacity 58Cycles
		mm	mm	mm	mm	3	KW	BDT/D	BDT/D
AHP8	8	2800	3300	1300	1082	3	150	58	70
AHP10	10	3100	3500	1400	1082	3	170	72	86
AHP12	12	3200	3700	1500	1385	3	200	86	104
AHP15	15	3600	3950	1600	1385	3	225	108	130
AHP23	23	4000	4400	1900	1700	3	330	165	200
AHP30	30	4450	4600	1900	1815	4	450	216	261
AHP35	35	4600	4700	1950	1815	4	525	252	305
AHP40	40	4800	5050	2150	2095	4	600	288	349
AHP50	50	5100	5400	2280	2235	4	750	360	436
AHP60	60	5350	5600	2340	2235	4	800	432	522
AHP70	70	5700	5900	2450	2555	4	850	504	700
AHP100	100	6400	6600	2650	2655	4	1100	720	871

The number of cycles to calculate the capacity must be determined depending on the furnish and customer's operational condition.



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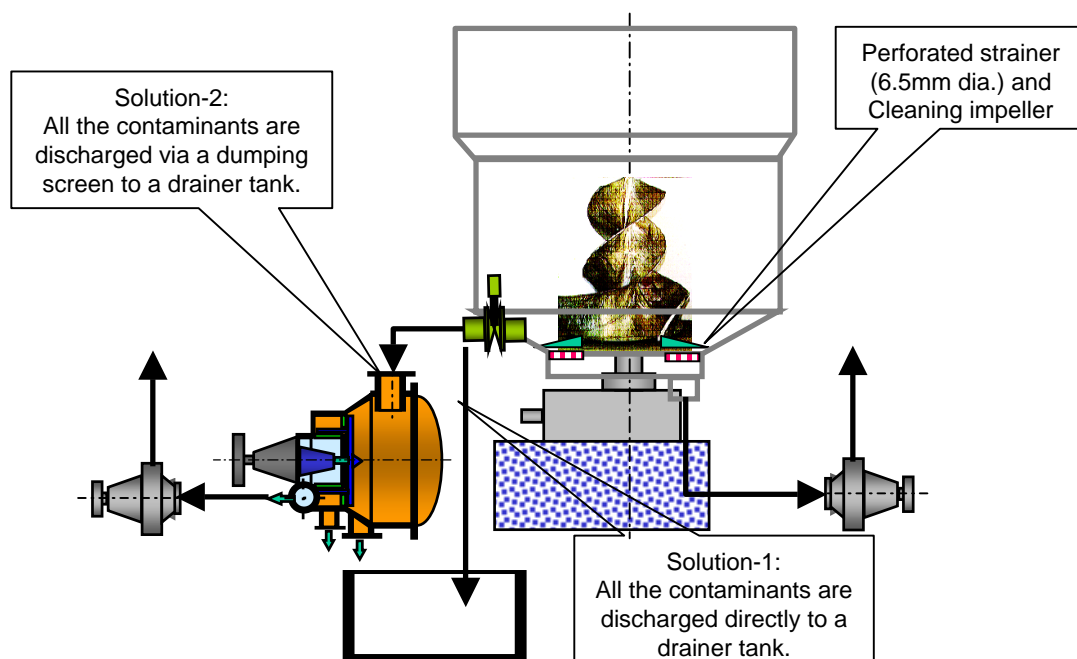
# AHP-C Heli-Pulper

Fiber Recovery from Contaminated Furnish

## FEATURES AND BENEFITS



The "AHP-C" Heli-Pulper is used to treat quite contaminated furnishes such as poly/aluminum foil laminated paper, wet strength paper used for agriculture, foods etc. mirror coated paper, unsorted mixed waste recovered from town and to recover good fiber from those contaminated furnish. The recovered paper is used as a raw material of paper board, and the separated contaminants such as plastics, films are supplied to a energy saving plant as a resource of a fuel.





# AHP-C HelicoPulper

## ADVANTAGES

Processing System of Unsorted  
Mixed Waste from Town

An typical example of the system;

Feed furnish: 120T/D, Accepts: 55 to 60 T/D

1. AHP-C Heli-Pulper (6.5mm hole strainer)

AHP-30C (600KW Motor)

2. High Consistency Cleaner

3. AlphaScreen (3mm hole+2.0mm hole)

AL100S (110KW Motor)

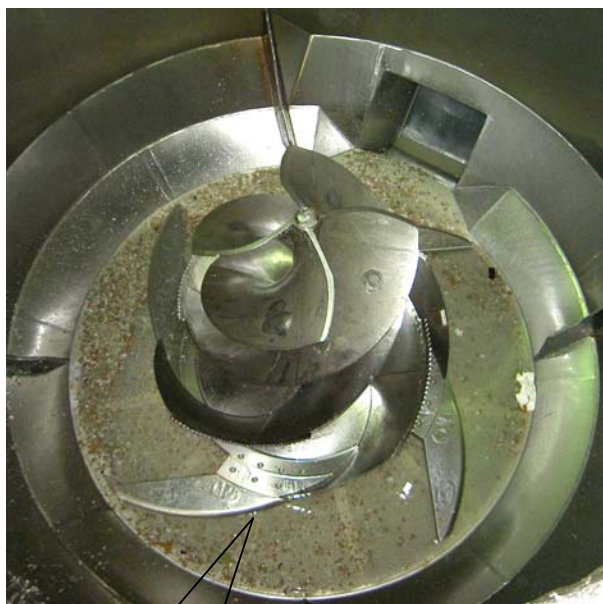
4. MaxFlow (0.20mm slot cylinder)

Max400 (30KW Motor)

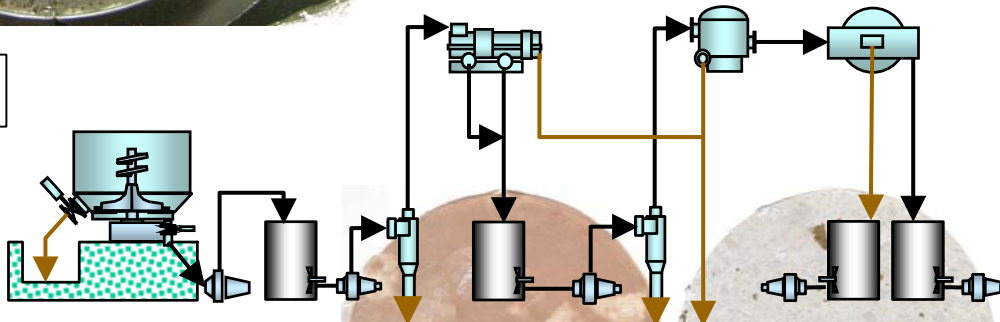
5. Middle Consistency Cleaner to remove sand

6. Thickener

The stock yield varies depending on the contamination degree of the furnish.



Perforated strainer  
and Impeller



Contaminants discharged from pulper

Pulper Accepts

Pulper Accepts

Finished Stock

Finished Stock



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# ADP DeltaPulper

High Efficiency Low Consistency Pulper



## FEATURES AND BENEFITS

The DeltaPulper consists of a Tub with a Delta Baffle, rotor vanes effectively arranged for pumping and deflaking of paper flakes. It provides superior defibering at consistencies ranging from 2.5 to 7% owing to the ideal combination of these components.

Benefits;

1. Superior defibering performance at consistencies ranging 2.5 to 7% ;
2. Saving power compared with conventional pulpers;
3. Stable continuous stock discharge;
4. Rapid introduction of furnish into the stock circulating stream in the pulper;
5. Greater production with less power consumption, and Easy maintenance;

Model ADP-60 with a Ragger and Rope Cutter



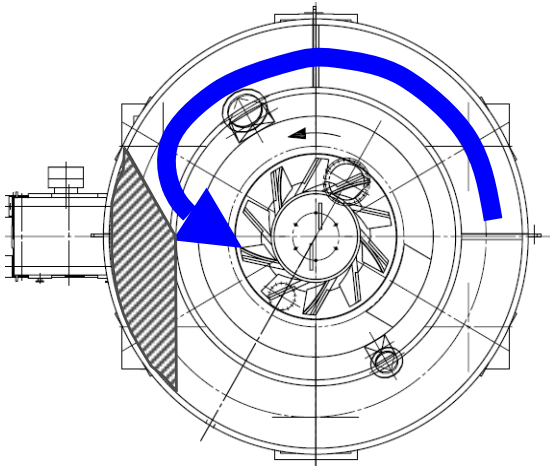
## Applications

- Repulping of Various Waste Paper.
- Repulping of Various Market Pulp Sheet.
- Repulping of Dry Broke Paper.



# ADP, Low Consistency Pulper

Delta Baffle Construction



## ADVANTAGES

### Delta Baffle:

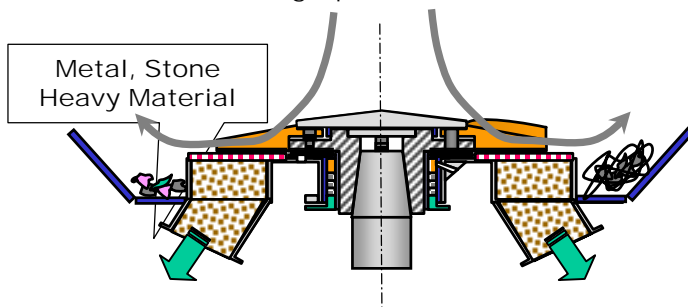
When the stock is about to initiate a horizontal swirl, it is forced backward by the Delta Baffle toward the rotor and is returned to the rotor via the shortest path, and the relative speed difference between rotor and stock circulating stream becomes bigger, resulting in greater deflaking performance is achieved.

### Standing Up Chamber & Rotor:

The Standing Up Chamber Construction provides;

1. Less wearing of rotor and perforated pulper strainer.
2. Stable rotating of the ragger rope around the rotor.

Standing Up Chamber Construction



Standard Specification & Capacity of ADP Pulper

		ADP15	ADP25	ADP30	ADP40	ADP60	ADP70	ADO90	ADP120	ADP130
Volume	m <sup>3</sup>	15	23(25)	30	36(40)	50(57)	70(73)	90(95)	115(120)	130
Diameter	Φmm	3700	4300	4900	5500	6100	6700	7300	7900	8200
Height	mm	4670	5180	5760	6110	6510	6710	6960	8000	8250
Motor	KW	150	220	300	400	600	650	750	90	1200
6.5mm Φ	BDT/D	120	170	240	310	410	500	560	650	890
	cm <sup>2</sup>	2600	3000	4300	5600	7400	8100	9100	10500	14700
9.5mm Φ	BDT/D	170	250	300	400	520	570	720	810	1040
	cm <sup>2</sup>	3100	3600	4500	6050	7900	8600	9700	11200	16800
13mm Φ	BDT/D	210	310	370	500	580	770	860	1050	1300
	cm <sup>2</sup>	3250	3750	5200	6800	9000	9800	11000	12700	17000

Capacity=Stock Temperature, 40°C, Volume=Tub Volume, Diameter=Tub Diameter

Furnish: JOCC (For Mixed Waste, Magazine=x1.15), Height =Total Pulper Height



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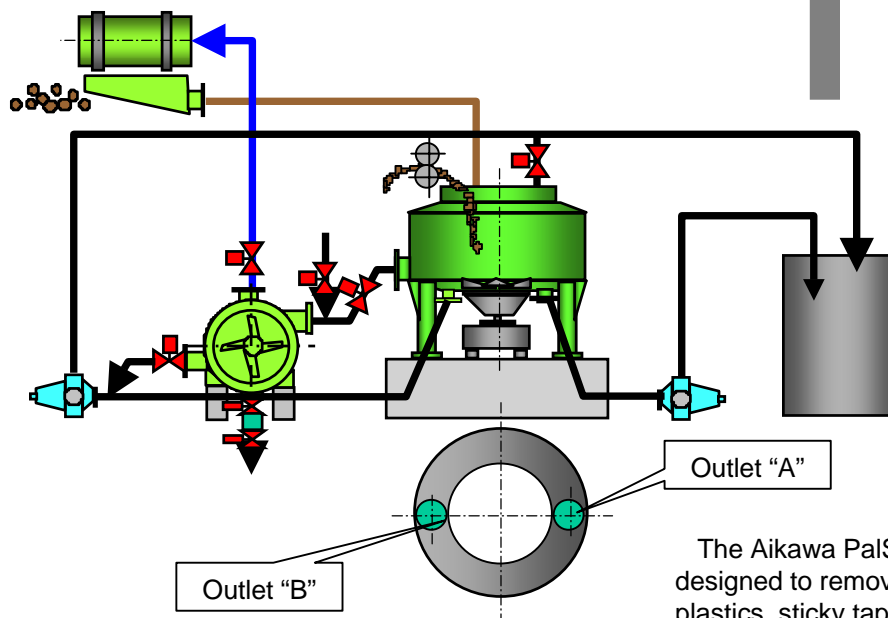
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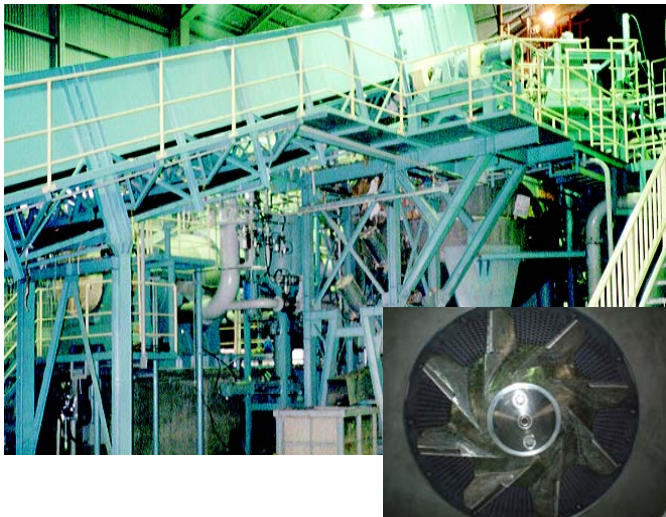
# Pal-Sorter

The Most Advanced Pulper Detrash System

## FEATURES AND BENEFITS



Pal Detrash System & Impeller of PalSorter



The Aikawa PalSorter and Detrash System is designed to remove various contaminants such as plastics, sticky tapes, etc. directly from the pulper before they pass through the pulper extraction plate.

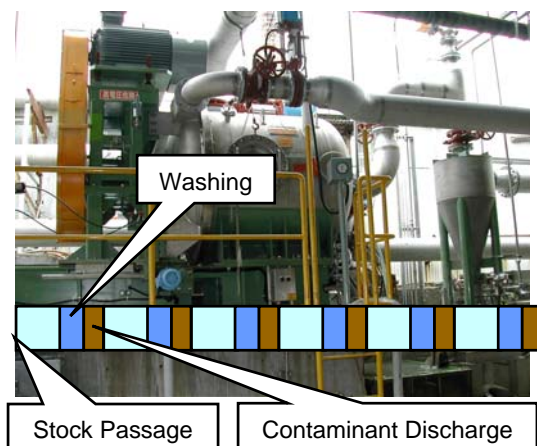
The PalSorter & Detrash System prevents contaminant build up in the pulper, and thus this system results in prevention of loss of production due to the downtime for cleanout of the pulper. The pulper provides two (2) stock outlets, the main outlet (outlet A) discharges continuously the stock through the extraction plate and the additional outlet (outlet B) connects to the PalSorter, and PalSorter operates on a cycle basis.

Benefits;

1. Removes various contaminants in large sizes.
2. Keeps pulper clean, resulting in eliminating pulper down time for cleanout.
3. Increases pulper throughput capacity.
4. Reduces sticky problems on paper-machine.
5. Protects wearing of rotor and extraction plate.
6. Easy maintenance.

# PalSorter & Detrashing System

## Operating Principle



The PalSorter & the Detrash System operates on a cycle basis, the stock is extracted directly from the outlet pipe located at the side of the pulper. Good fiber is accepted through a perforated strainer of the PalSorter and is sent to the dump chest of the downstream.

Contaminants build up inside of the PalSorter Casing, and then are washed periodically. After washing, the contaminants and some fivers are discharged to the Drum-Screen (Model FRD), which works as Dewatering Drum and Fiber Recovery Drum. Only contaminants are discharged as shown on the picture mentioned below. All operation cycles are controlled by a programmable controller.



Standard Specification & Capacity of PAL-Sorter

Pulper Size	m <sup>3</sup>	ADP15-25	ADP30-60	ADP60-90
PalSorter	Connected	PAL-600	PAL-800	PAL-1000
Installed Motor	KW	45	90	110
Tub Volume	m <sup>3</sup>	1.5	3	5
Impeller Dia.	mm	610	845	1070
Hole Diameter	mm	6.5 to 10	6.5 to 10	6.5 to 10
Capacity	m <sup>3</sup> /min	1.5	3	4.5
Drum-Screen	Connected	FRD-600	FRD-800	FRD-1000
Installed Motor	KW	3.7 - 5.5	5.5 - 7.5	7.5 - 11
Drum Diameter	mm	900	900	900
Drum Length	mm	3000	4500	5000

For ADP90-130, two (2) sets of PAL 1000 is recommended.



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# PEA Dumping Screen

Most Advanced Double Dumping Screen  
for High Consistency Pulper

It is quite important for Deink-Plant to avoid crushing foreign materials and remove them at the earliest stage of the process. The PEA Double Dumping Screen is installed just after a High Consistency Pulper and removes the foreign materials during stock dumping period from the pulper. Almost all contaminants are discharged out of the process from the PEA at the first stage of the system.

Two (2) models are available for the Dumping Screen, model A and model B. The model B is the latest developed Dumping Screen providing much superior contaminants removal performance. The model A is a conventional Dumping Screen.

Benefits;

1. Most efficient separation of fibers and contaminants such as plastics, films, adhesives with out breaking them up;
2. A compact system saving in the floor space;
3. The coarse perforation screens can be eliminated from the system when the model B is adopted;

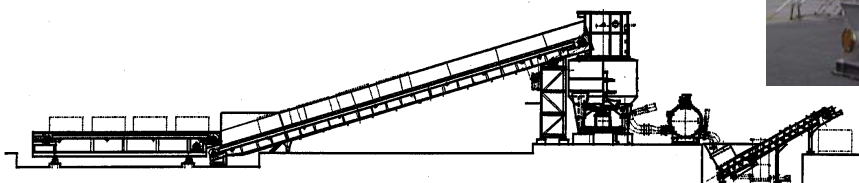
## FEATURES AND BENEFITS



Contaminants Handling of AHP;  
Dumping Screen PEA1400-B and Screw Separator

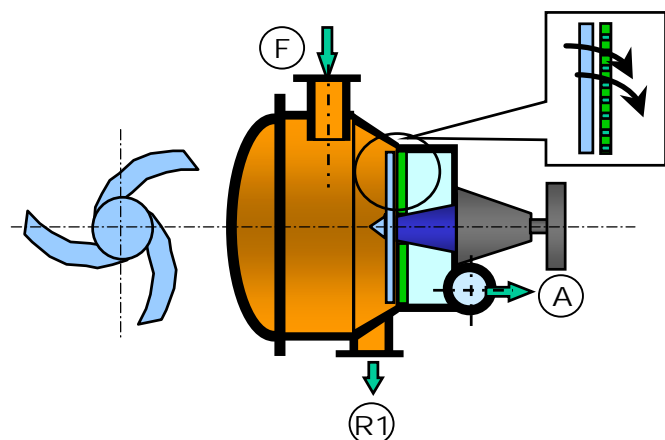
## Applications

- Pulping of Recycled paper to be Deinked
- Pulping of Various Market Pulp Sheet.
- Pulping of Poly-Coated Grades
- Pulping of Magazine, Mixed Waste Paper

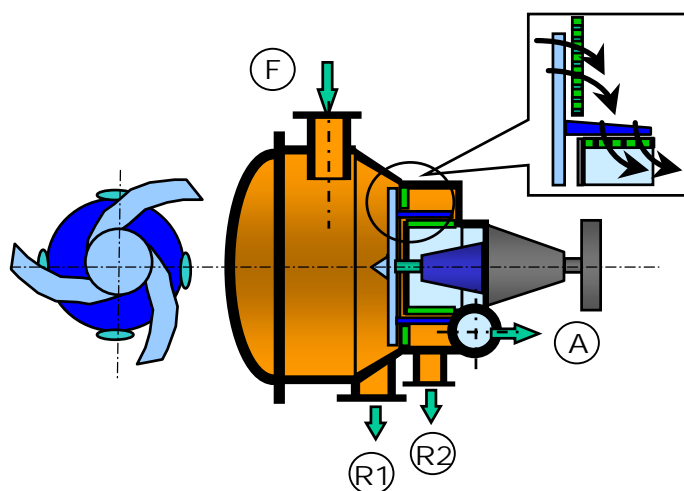


# PEA, Dumping Screen

PEA Dumping Screen Model-A



PEA Dumping Screen Model-B



## ADVANTAGES

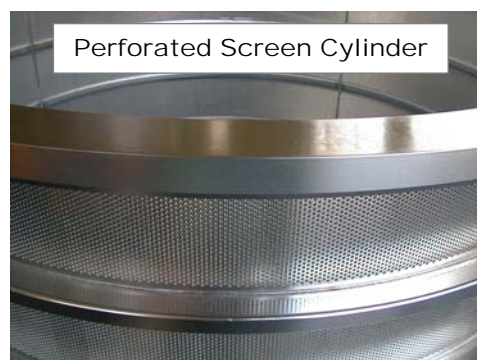
Model-A:

The model-A is a conventional stock dumping screen from a high consistency pulper, which provides a flat perforated strainer, of which hole diameter is 4.0mm to 6.0mm.

Model-B: (Patent apply)

The model-B has two screening devices, a flat perforated strainer and a perforated screen cylinder just like a pressurized horizontal screen. The hole diameter of the cylinder is 2.0mm to 3.5mm. Big size contaminants are discharged as a reject R1 by the perforated strainer and smaller size contaminants are discharged as a reject R2 by the perforated cylinder.

Contaminants are stopped by the perforated strainer/cylinder during stock dumping period, and build up in the stock chambers. Then, contaminants are washed and separated from the good fibers. Finally, reject cleared of fibers are discharged. It works in cycles automatically controlled by a programmable controller



Standard Specification & Capacity of PEA Model-B

	Pulper Size Connected	Instaled Motor	Impeller Diameter	Blade & Foil Number	Strainer O.A.(7mm)	Basket O.A.(2.5mm)	Tub Volume	Through-Put m³/min
PEA1800	AHP40-70	220 KW	1750mm	4 & 8 pcs.	0.4156mm²	0.3602mm²	7.5 m³	20 m³
PEA1400	AHP15-35	132 KW	1400mm	3 & 6 pcs.	0.2410mm²	0.1782mm²	3.8 m³	10 m³
PEA1100	AHP8-15	90 KW	1100mm	3 & 5 pcs.	0.1385mm²	0.1070mm²	2.0 m³	6 m³



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# ANP Pump

Aikawa None Plugging Pump



## FEATURES AND BENEFITS

The "ANP" is a specially designed none plugging pump, which can handle a dirty stock contained big size foreign materials as shown on the picture.

Benefits;

1. Free from plugging problem, even the stock contains lots of contaminants:
2. Quite simple construction:
3. Easy maintenance:
4. Less space and low running cost:



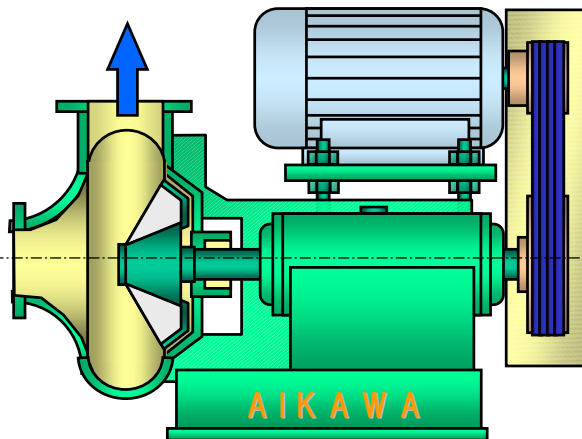


# ANP None Plugging Pump

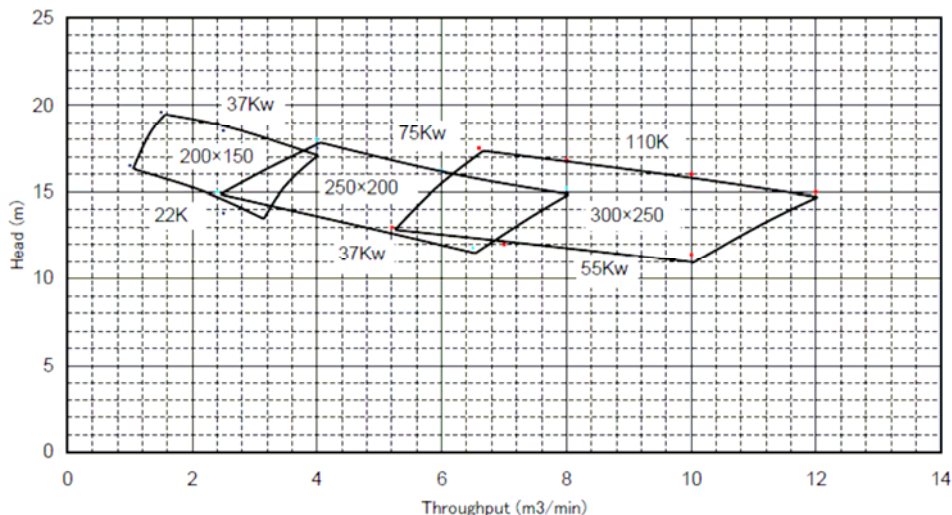
The main feature is the specially designed impeller, which is a open type and rotates in the back side chamber of the housing, so that the contaminants contained in the stock are sent to the forward by the hydraulic vortex stream without contacting to the impeller.

Three models are available depending on the required throughput, of which the capacity is shown on the table mentioned below.

## Constructuion & Capacity



Capacity of ANP Pump (Model 200-150, 250-200 and 300-250)



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