SAITO SEPARATORS

SAITO STARCH SEPARATORS

SSC SERIES

SSC-855

SAITO SEPARATOR LIMITED

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"Saito"starch separator

Nozzle type for washing and concentration of Corn, Potato, Tapioca and Root-starches.
With severe selection of good-quality stainless materials and long history of experience for manufacture, "Saito"separator Ltd. are enjoying users' confidence on performance and durabilities of our Separators and are now fully proceeding to develop large type of centrifugal separators.

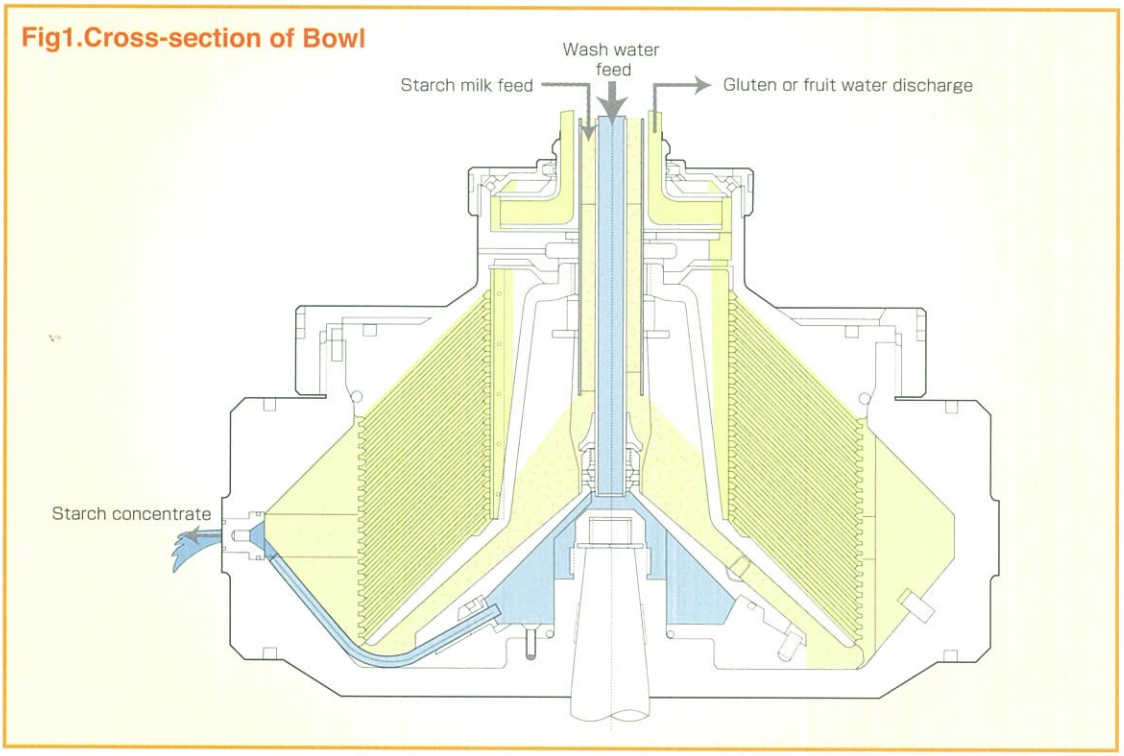
Advantages

Easy handling, Trouble free, Heavy duty, Simple exchanged nozzles. Labor savings (automatic operation), Time savings (continuous operation)

Design and operating principles of the bowl

The feed liquid is introduced into the bowl through the annular feed tube around the shaft of the collector pump. Flow pattern in the bowl is illustrated in Fig1. The starch milk is divided into fine layers in the disc set, thus removing the starch granules and giving greatest separating efficiency. The starch concentrates in the space around the periphery of the disc stack and discharges through the nozzles as underflow. The conical shape of the bowl interior, formed by the bowl top and bowl bottom, enables the starch to slide easily to the nozzles.
The starch-free overflow, together with solid gluten or fibers, flows to the center, enters the pump chamber and is discharged under pressure by the collector pump. Through put capacity at the separator depends upon the retention time necessary to completely separate the starch phase from the lighter gluten phase and to discharge a starch-free overflow. To obtain pure starch, the granules are intensively washed by fresh water introduced through high velocity jets at the nozzle area. By this means, proteins and fibers are efficiently removed. The desired starch concentration can be regulated by, adjusting the hourly feed rate and choosing the proper nozzle size combination.

Fig1.Cross-section of Bowl



Features of the collector pump

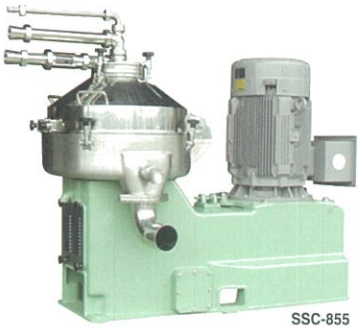
- Pressure discharge of liquid
- The liquid-seal
- Form free
- Elimination of extra pumps
- Prevention of liquid losses

Construction features

- Enclosed design
- Permanently corrosion-proof
- Removable enclosed hood easy for disassembling
- Inverter driven

Application

- Potato and root starchs
  Concentration and simultaneous separation of starch and fibers
- Wheat starch
  Concentration of starch milk and starch recovery.
- Corn (Maize) starch
  High concentration with simultaneous reduction of protein content in the starch and increase of protein content in the gluten.
- Rice starch
  Intensive washing and concentration.



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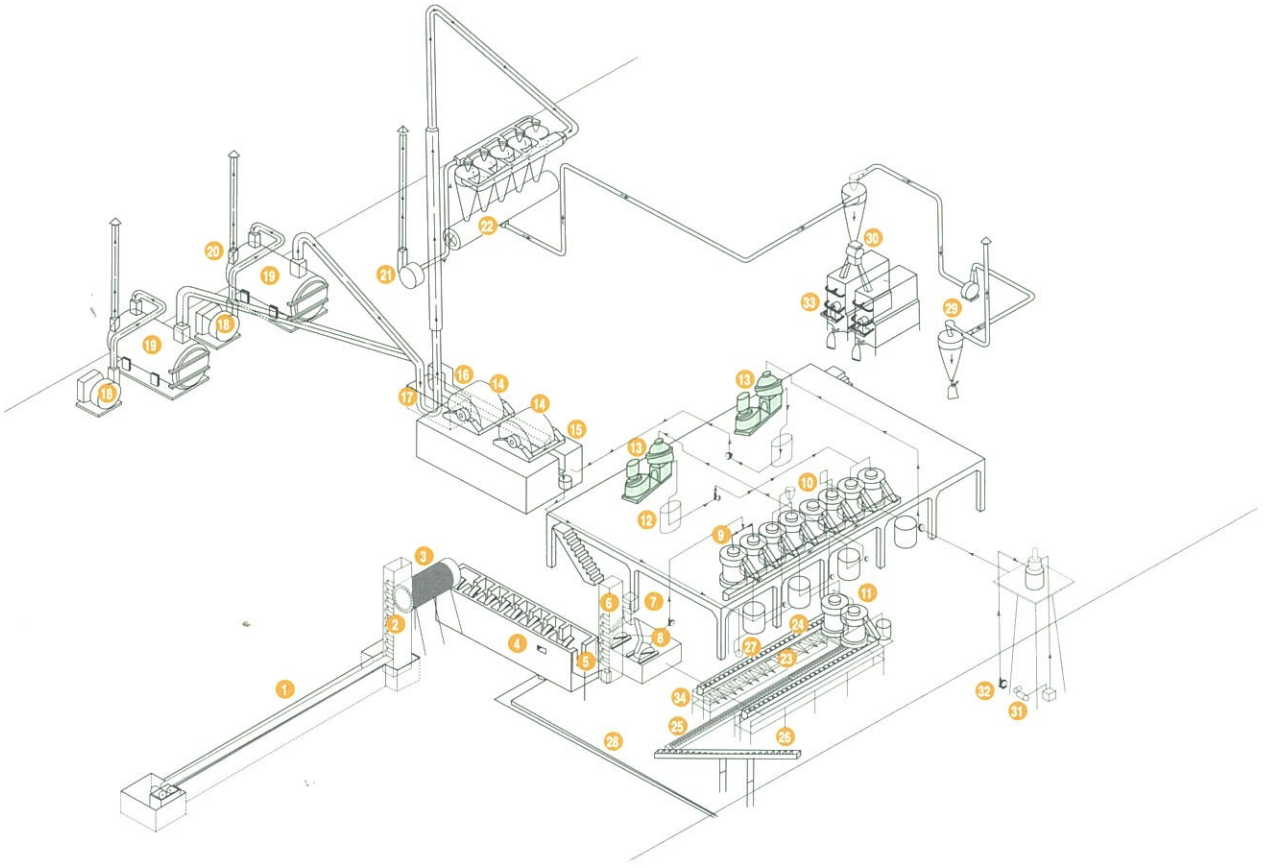
5T/H TAP10CA STARCH PLANT PROCESS



1. RUBBER BELT CONVEYOR 3HP/48RPM
2. BUCKET ELEVATOR 3HP/48RPM
3. ROOTS'PEELER 3HP/1400RPM
4. ROOTS WASHER 7.5HP/1400RPM
5. ROOTS SHAKNG 2HP/1400RPM
6. RASPS BUCKETCONVEYOR 3HP/48RPM
7. ROOTS CHOPPER 5HP/1400RPM
8. ROOTS RASPS 60HP/1400RPM 2SETS
9. EXTRACTORS 7.5HP/1400RPM 2SETS
10. EXTRACTORS 5.5HP/1400RPM 6SETS
11. EXTRACTORS 5.5HP/1400RPM 2SETS
12. .STARCH CONCENTRATING CONCRETE BASE HIGHT 2.5M
    UNDERNEATH SITUATED THE FOLLOW MILKPUMPS
    1.7.5HP/1400RPM
    2.5.5HP/1400RPM
    3.3HP/1400RPM
13. SEPARATORS 40HP/4500RPM 2SETS
14. HORIZONTAL CENTRIFUGES 35HP/1400RPM 2SETS
15. CONCENTRATED STARCH MILK PUMP 3"3HP/1400RPM
16. STARCH FEEDR 10HP/1400RPM
17. SCREW FEEDER 5.5HP/2900RPM
18. PRESSURE FAN 20HP/1400RPM
19. AIR HEATER 2SETS
20. HEATER BURNER 5HP/1400RPM
21. SUCTION FAN 35HP/1400RPM
22. CYCLONE COLLECTOR 5.5HP/1400RPM
23. PULP PRESS MACHINE 2HP/1400RPM 12SETS
24. WET PULP SCREW CONVEYOR 5HP/1400RPM 2SETS
25. PULP PRESSED COLLECTING CONVEYOR 3HP/1400RPM
26. PULP PRESSED CHAIN DELIVERING CONVEYOR 3HP/1400RPM
27. MONO PUMP 5.5HP/1400RPM
28. DRAIN CHANNEL
29. COOLING FAN 20HP/1400RPM
30. MOTOR GEAR 0.5HP/48RPM
31. SULPHUR STOVE PUMP 3HP/1400RPM
32. SULPHUR WATER PUMP 3HP/1400RPM
33. STARCH SIFTERS 7.5HP/1400RPM 2SETS
34. PULP PRESS WATER PUMP 3HP/1400RPM

SPECIFICATION OF STANDARD MODEL

Model	Motor power (kw)	Bowl speed (r.p.m)	Capacities (m^3/h)		Weight kg(net)	Measurements m/m (net)
			For corn starch	For root starch		
SSC-255S	11	4,800	12	25	1,020	1,610×1,040×1,400
SSC-355S	18.5	4,600	15	35	1,100	1,640×1,070×1,580
SSC-455EW	30	4,500	20	40	1,600	880×1,840×1,720
SSC-655EW	55	4,500	40	80	2,350	1,270×1,890×1,720
SSC-855EW	75	4,500	50	100	2,400	1,270×1,890×1,720
SSC-885EW	75 (Max90)	4,500	55	110	2,450	1,270×1,890×1,720
SSC-1000EW	160	3,600	65	135	3,500	1,400×2,050×2,100

※The above mentioned specifications are subject to change for improvement or arrangement.
※Any specification work other than above will be ready to supply upon a request.

●Chemical and Pharmaceutical Industries.
Washing and Concentraion of Precipitates (deposits or settlements), tiny crystal and colloidal objects.
Washing and concentration of pigments.
●Waste Water Treatment.
Concentration of precipitates and tiny solids from waste water for recovery and removal purposes.

Please inform of the following items for inquiry.
1. Name of raw material to be dried.
2. Quantity to be processed every hour.

BUSINESS LINE

■CYCLONE DRYER
■DISC BOWL CENTRIFUGE
Opening bowl type
Solid bowl type
Nozzle type
■SCREW DECANTER
■CONTINUOUS DEHYDRATOR
■PLANT
Starch, Fish meal
Fruit juice, Herbal Medicine
Waste oil, etc.....
■OTHERS
De-foaming pump
Material feed system
Auto brush strainer

●For further inquiries & concerns upon our machines and demonstrational tests, please visit our website.

SAITO SEPARATOR LIMITED

Head Office : 1-8-7 Haneda Ohta-ku Tokyo 〒144-0043 TEL.81-3-3743-1116 FAX.81-3-3743-1110

Factory : 2-4-1 Showa-Jima Ohta-ku Tokyo 〒143-0004 TEL.81-3-6913-0516 FAX.81-3-6913-0517

http://www.saito-separator.co.jp

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