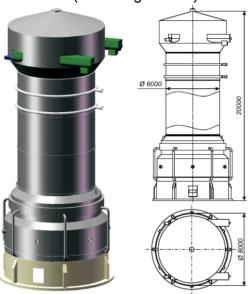
Scientific Supervisor **A.I. Guryanov**, doctor of sciences in techniques, professor at KSPEU

This device is a absolutely new jigging diffusion apparatus for extraction of sugar from sugar beet. According to required manufacture conditions and consumers' needs, it can be designed with variable productivity from 1000 to 6000-8000 tons a day.

This device is an alternative to mechanical diffusers with diameter of up to 8 metres and up to 50 metres long. The jigging diffusion column has the following advantages:

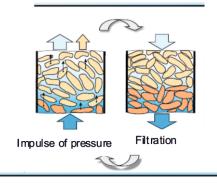
- metal consumption decrease up to 40%
- absence of moving parts inside the device (the screw, the rotor, etc..)
 - up to 15 % operating cost reduction

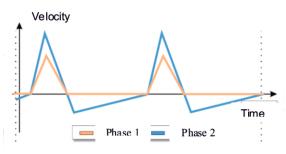
| DPA 6000 | (extracting | column) |
|----------|-------------|---------|
|----------|-------------|---------|



| Technical characteristics | | |
|----------------------------------|-----------|--|
| Туре | A column | |
| The device orientation | vertical | |
| Method of Transportation | jigging | |
| Moving or fixed elements | None | |
| Productivity on sugar beet, | 6000 | |
| toons/day | | |
| The device beet chips unit | 0,6-0,65 | |
| load, t/m | | |
| Beet chips required characte- | 6-16 | |
| ristics / 100 gramm | | |
| Additional chips destruction | none | |
| during transportation | | |
| The device volume operating | 0,93-0,98 | |
| factor | | |
| The zone of air contact | minimal | |
| Active diffusion time, min | 65-70 | |
| Pumping value, % | 110-125 | |
| The diameter of the zone sys- | 6 | |
| tem, м | | |
| Length of the zone system, м | 15 | |
| Total power consumption, kW | 80 | |
| Weight, tonnes | 170 | |
| The device overall dimensions, м | | |
| Height | 20 | |
| Length | | |
| Width | 8 | |
| The estimated cost of the de- | 120m | |
| vice in roubles | | |

Principally new way on the basis of technological transporting of critical concentration of solid phase by pulsations of pressure for heat and mass exchange apparatuses with continuous action was invented. It is an alternative way for existing equipment in pharmaceuticals, food, chemical, agricultural sectors of industry, especially for large-scale value production. Perfect solution for productivity increase.





Functional principal







Kazan State Power Engineering University:

420066, Kazan Krasnoselskaya Street, 51.

Phone/Fax:

+7(843) 527-92-04 - Department on science & technology information +7(843) 519-43-55 - reception of Vice-Rector in science

Contact person

8-(843)-519-43-21 8-903-061-43-48 e-mail: gurai@mail.ru



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