

[HECD] High Efficiency Crystallization Cauldron

Even grained crystallization/ Hermetic processing/ Automatic control

Features

1. High efficient and even grained crystallization

HECD is the batch solution for high efficient crystallization; according to different crystallization features product with ribbon spiral or plate shaft will be recommended. The internal shaft structure is designed for maximum heat exchange while the cauldron is fully jacked with temperature control system; the shaft stirring with low speed improves the heat exchange processing for even grained crystallization; therefore, the processing efficiency can be 3-5 times higher than the traditional crystallizing cauldrons.



2. Hermetic operation

HECD is one self-contained unit; any pollution to operation environment or products, concerning about loss during in processing can be fully prevented.

3. Automatic control system

Considering reduce the customer labor demand during processing, automatic control center is implemented basing on user-friendly concept; operation training program is provided

4. Alternative materials

We manufacture in various grades of stainless steel or alloys to satisfy customer individual application; polished surface is possible.

5. Crystallization tests

Crystallization unit is available in our test center for customer specific tests; test reports are offered as reliable basis for product selection..

Structures & Process steps

Structures

① Drive structure(anti-dust cover optional)

Spiral ribbon is drove by main motor and spin with low speed; heat exchange is improved while even grained crystal is maintained; ATEX and anti-dust configurations are optional base on customer requirement.

② Mechanical sealing

Professional sealing part designed and manufactured by DING CHANG, isolating the processing step from outside environment; customer application indicates the maximum lifetime has exceeded 10 years;

③ Main cauldron

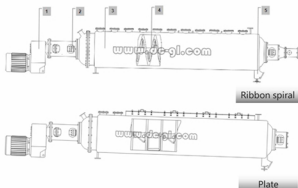
The main cauldron is equipped with half coil jackets and heat prevention layer for precise and durable heat exchanging; observing ports are configured for online monitoring;

④ Main shaft

Shaft stirring can be continuous or discontinuous for different processing requirement; stirring with low speed will improve the heat exchange while maintain the even grained crystallization; meanwhile the shaft structure is designed with maximum heat exchange area for more efficient processing;

⑤ Discharging port

Processed crystals is automatically discharged to storage tank via the port at lowest position; discharging can be configured with enclosed channel.



Process

One batch liquid is fed into the cauldron with defined power; spiral is stirring and crystallization processing temperature can be controlled precisely during the entire process; online monitoring is available for comprehensive crystallizing; finally the crystallized liquid and solid will be automatically discharged to storage tank and be prepared for next process.

Applications

Pharmaceuticals/ Chemicals/ Organic chemicals/ / Food/ Metallurgy and so on

Performance data and dimensions

| Items | Type | HECD-1.0 | HECD-2.0 | HECD-3.0 | HECD-4.0 | HECD-6.0 | HECD-8.0 | HECD-10 |
|---------------------------------|---|-------------------|----------|----------|----------|----------|----------|---------|
| | Volume | [m ³] | 1.0 | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 |
| Heat exchange area | [m ²] | 15 | 24 | 37 | 46 | 66 | 75 | 100 |
| Drive power | [kw] | 2.2 | 3.0 | 4.0 | 5.5 | 7.5 | 11 | 15 |
| Materials | a broad range of different high alloyed steel | | | | | | | |
| Dimensions | | Φ600 | Φ700 | Φ800 | Φ900 | Φ1100 | Φ1200 | Φ1400 |
| Diameter x length x height [mm] | | x 5500 | x 6500 | x10500 | x 11000 | x11000 | x11500 | X11500 |
| | | x1200 | x 1300 | x1300 | x 1500 | X1700 | x1800 | X2000 |
| Weight | [t] | 1.8 | 2.8 | 4.0 | 5.5 | 7.5 | 10.5 | 13.5 |
| Others | Depends on customer requirement, units with unmentioned specifications is available; Dimensions and weights are for customer reference; data may varies according to design updates. | | | | | | | |

DING CHANG products :

- Cylinder cone filtering&washing&craying equipment
- Cylinder cone press filter
- Bi-conical spiral mixing dryer
- Continuous press filter with composite rotary plate
- Horizontal crystallizing&washing&filtering&drying equipment
- Multi-tube continuous filtration concentrator
- Multi-plate continuous filtration concentrator
- Spiral mixing continuous crystallization reactor
- High Efficiency Crystallization Cauldron



DENG BEI Road
 QIAN ZHOU Town
 HUI SHAN Region
 WUXI JIANGSU Province
 Zip Code: 214181
 Tel.: +86 (0)510 83390918
 +86 (0)510 83886199
 Fax: +86 (0)510 83385029
 E-Mail: dcc@163.com