

TECHNICAL BROCHURE · TOASTERS

DC series toasters

Multi-vat desolventizer-toasters: final removal of solvent from meal, plus drying and cooling.

18

MODELS IN RANGE

5–13

VATS, MULTI-TIER DESIGN

Purpose

Meal leaves the loop extractor wet and saturated with hexane vapour, so it cannot go straight to storage or feed. The toaster (desolventizer-toaster) finally removes the solvent, then dries and cools the meal.

Why the DC series is multi-vat

- **Controlled regime on every tier:** separate control of temperature and residence time at each stage.
- **Stable residence time:** meal moves from vat to vat through adjustable gates, with no bypassing and no excess protein overheating.
- **Meal quality preserved:** distributed heating reduces thermal degradation of the protein fraction.
- **Efficient vapour recovery:** the upper vats immediately send most hexane vapour to condensation and return the solvent to the cycle.

How to choose a toaster

1**Regime per tier**

Upper vats steam and desolventize (hexane removed with live steam); lower vats dry and cool. The number of vats sets how many separate stages the meal goes through.

2**Diameter and column height**

Internal diameter and vat column height determine capacity and residence time of the meal; check them against ceiling height and structural loads.

3**Meal quality**

Heating is spread over several tiers, so the protein fraction suffers less thermal degradation, which improves the feed quality of the final product.

4**Matching the extractor**

The toaster receives wet meal saturated with hexane vapour from the loop extractor. Select the model for the extractor capacity.

5**Steam and vapour recovery**

Consider steam chamber pressure and the condensation system: the upper vats send most of the hexane vapour to condensation.

6**Safety**

The toaster works with solvent: the project includes tightness, ventilation, gas monitoring and earthing.

Important

Indicative selection only. The final model is defined by the technical specification together with D.ENERGY engineers.

DC model parameters

Model	Volume, m³	Vats	Internal diameter, mm	Column height, mm (max)
DC.155	12.01	5	1500	6800
DC.156	14.13	6	1500	8000
DC.157	15.9	7	1500	9000
DC.158	18.02	8	1500	10200
DC.159	20.14	9	1500	11400
DC.150	22.25	10	1500	12600
DC.151	24.37	11	1500	13800
DC.152	26.49	12	1500	15000
DC.153	28.61	13	1500	16200
DC.205	21.35	5	2000	6800
DC.206	25.12	6	2000	8000
DC.207	28.26	7	2000	9000
DC.208	32.03	8	2000	10200
DC.209	35.8	9	2000	11400
DC.200	39.56	10	2000	12600
DC.201	43.33	11	2000	13800
DC.202	47.1	12	2000	15000
DC.203	50.87	13	2000	16200

Common parameters of all models

Toaster working pressure, MPa (kgf/cm²)	0.098 (0.98)
Steam chamber working pressure, MPa (kgf/cm²)	0.6...1.0 (6...10)
Working medium	Steam-air mixture (hexane vapour, water vapour), meal

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This material is for information only. Final configuration and parameters are defined by the technical specification and agreed with D.ENERGY engineers. Data as of 08.10.2026.