



CC-Cut

Combination of progressive cavity pump from the CC series with upstream RotaCut in-line macerator





CC-Cut: Economical treatment and pumping of demanding suspensions

Well macerated and homogeneously distributed solid matter in an organic suspension forms the basis for efficient fermentation. That is exactly why Vogelsang developed the CC-Cut: a powerful, compact unit for efficient treatment and pumping of highly viscous and demanding suspensions.

The concept

The CC-Cut combines the advantages of an easy to maintain progressive cavity pump from the CC series with those of the powerful RotaCut RCX or RCQ. The two components are combined to form a single space-saving unit.

Mode of operation

The medium is sucked into the RotaCut first. It reliably separates out heavy material such as stones or metal particles and cuts coarse constituents and long fibers. This prevents material from becoming entangled and expands the surface area of the substrate. The mixture entering the downstream pump is homogeneous and well prepared, so it can be fed reliably and economically into the digester. If needed, the suspension can be treated more thoroughly by means of recirculation or bypass operation. A single pipe network allows feeding of multiple digesters and easy connection of additional tanks later on.

In addition, the CC-Cut can perform other pumping tasks such as waste disposal from distributed reception pits or the feeding of remote external sites.

Compact design

Only the CC-Cut provides a direct combination of a RotaCut with a progressive cavity pump. This makes the unit uniquely compact and space efficient, and is therefore easy to integrate, even in confined spaces.

Unique CC-design makes part replacement easy

Servicing and maintenance tasks are completed very quickly on the CC-Cut. The servicing features that the CC series is known for are available in full on the CC-Cut as well: The rotor and stator swivel out of the unit for quick and easy removal and replacement. Alternatively, the stator can be detached on site and the rotor then replaced if necessary, without needing to remove the protective sleeve around the cardan shaft.

Replacing parts on the RotaCut is just as simple. The maintenance port can be opened to access the cutters and they can be replaced easily. The space required for all service work is minimal.

In addition to treating premixed suspensions and pumping them into the digesters, the CC-Cut can be used as a central pump station for a range of other pumping tasks in the biogas plant.



Advantages of the CC-Cut

- Economical treatment of premixed suspensions
- Cut coarse matter and fibrous material upstream from the pump unit
- Separates heavy material upstream of the pump unit
- Easy-to-integrate; compact dimensions
- Feeding of several digesters with a single system
- Service and maintenance can be carried out quickly and easily
- Homogenous mixing and solid particle size reduction leads to optimized biogas yield

Practical seal replacement

The CC pump and RotaCut RCX are fitted with the proven Cartridge mechanical seal. Since it is a preassembled mechanical seal, it can be quickly and easily replaced on site.

CC-Cut specifications

Type	Rated capacity m ³ /h / gpm	Max. operating pressure bar / psi	Peak pressure bar / psi	Max. free passage mm / in	Installed capacity RotaCut kW / hp	Installed capacity Pump kW / hp
CC-Cut RCQ33G + CC55-M2	30 / 130	8 / 116	12 / 174	73 / 2.8"	5.5 / 7.5	11 / 15
CC-Cut RCQ43G + CC66-M2	55 / 240	8 / 116	12 / 174	88 / 3.4"	7.5 / 10	15 / 20
CC-Cut RCX58G + CC66-L1	85 / 370	4 / 58	6 / 87	88 / 3.4"	11 / 15	18.5 / 25