

# MICCRA



原装德国

Labortechnik | Laboratory technology | 实验室仪器

Technikum | Pilot Plants | 中试产品

Prozesstechnik | Process technology | 工业混合分散设备

德国ART产品系列



ART

# DFK

分散匀浆工作腔系统—在线式

Dispersing and homogenizing system - InLine mode

# 20-40 mm

定子直径

Stator diameter

# 5 - 45 l/min

腔体容量

Flow capacity



DFK 1.0

这是一款为短时间连续工作提供的灵活解决方法。我们标准的实验室匀浆器 MICCRA D-15 或者 MICCRA D-9 主机即可实现。

*The flexible solution for short-term operation. Our standard laboratory homogenizers MICCRA D-15 or MICCRA D-9 provide the needed drive for your work.*



DFK 1.4

这是一款适用于实验室或中试实验的连续工作的循环腔系统。与高端主机 MICCRA D-27 的连接，您将获得独一无二的纳米级结果。

*The flow chamber system made for continuous operation in lab and pilot plant scale. Firmly connected with our MICCRA D-27 high-end drive, you will achieve unique product results up to nanometer range.*

安全、  
灵活、  
高效。

“MICCRA DFK Lab” 清洗简便快速，是实验室处理少量样品的高效循环腔体系统。

基于优越的模块化设计，所有批次系列的转子/定子元件都可应用于循环系统。由于不同凡响的高转速，样品的精细度可达40nm（取决于样品的特性和应用）。

迄今为止，这样的小系统从来没有其它系统可达到这样的效果。

*Safe, flexible, efficient.*

*The MICCRA DFK Lab is an easy and quick to clean, efficient flow chamber system for your lab and small scale production purposes.*

*As a result of the modular construction, all known rotor/stator-components from the batch-series are uncompromisingly available for this chamber also.*

*Due to the significant higher circumferential speeds, end-finenesses up to 40 nm can be achieved according to product features and application.*

*As yet, this was not possible with such small systems.*

推荐主机 | Recommended drives

Micra D-9 短时间工作 | (short-time operation)

Micra D-15 短时间工作 | (short-time operation)

Micra D-27 连续式工作 | (continuous operation)



Aufbaubeispiel DFK 1.0 mit MICCRA D-15

# DFK

分散匀浆工作腔系统—在线式  
Dispersing and homogenizing tools - InLine mode

# 20-40 mm

定子直径  
Stator diameter

# 5 - 45 l/min

腔体容量  
Flow capacity



“DFK”工作腔系统可以在实验室或中试实验处理在线/循环的大容量。  
高质的不锈钢坚实构件和耐磨密封材料确保了其在工业领域的各项应用。

- 化学/物理特性改变的流动能力
- 研究领域处理小样时的成本节约
- 处方的创建
- 由实验室转向将来的大量生产

The DFK system allows you the processing of larger volumes in InLine-/ flowthrough-procedure in lab and pilot plant scale.

The solid construction method made of high-quality stainless steel and the highly resistant sealing materials guarantee a versatile application in all industrial branches to:

- chemically and/or physically change of media capable of flow
- carry out smaller and therefore cost-saving attempts in the field of research
- create e.g. new recipes,
- transfer the gained insights in the lab scale to your future production sizes (scale up)



## 2 密封类型

可选择单一的机械密封和经FDA认证的唇式密封。

专利的悬盒结构使得唇式密封易于清洗，利于用户更换。维修工作省钱省时。

## 2 sealing types

You have the choice between a single mechanical seal and a lip seal with FDA approval.

The patent pending cartridge construction provides easy cleaning of the lip seal and may even be replaced by the user itself, if necessary. Therefore, you save costs and time for repair work.



灵活组合不同尺寸的定子/转子

Flexible use of different rotor / stator configurations and sizes



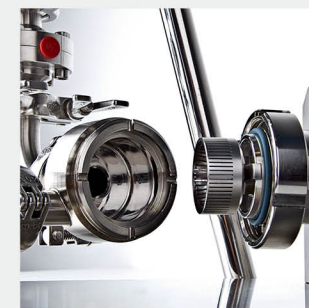
创新的盒式密封结构可以快速更换唇式密封

Revolutionary sealing system in cartridge construction allows quick and easy replacement of the sealing lips



简便的清洗和维护

Easy cleaning and maintenance



经高度抛光的刀头元件。

Standard high-polished tool components

附件如：不同容量的不锈钢杯（1, 3或5升），有单层和双层结构；软管接头，垫圈和三通阀等都是现货。如需其他容量或尺寸请咨询。

Accessories such as stainless steel containers with different volumes (1, 3 or 5 liters) in single or double-walled construction, hose nipples, fittings and three way valves etc. are standardly available. Further volumes/sizes available upon request.

# DFK 1.0

在线循环工作腔

InLine operated flow chamber

20-30 mm

定子直径

Stator diameter

5 - 26 l/min

腔体容量

Flow capacity

## 短时连续工作的理想方案

DFK 1.0 循环系统是快速、效益的产品开发成为可能。同样，所有批次系列的模块化转子/定子元件都可应用到这里。

- 这是第一次，可使用 MICCRA 实验室系列的批次式结构。
- 可灵活地利用快速夹把各类管、垫圈、容器（单层、双层、密闭、敞开式）、阀连接到系统，用小量样品实验来模拟生产。
- 还可利用机械系统来获得纳米级样品的精细度。所积累的知识可应用到未来的中试或批量生产。

## The ideal solution for short-time operation

The DFK 1.0 flow chamber system is the entry to a fast and cost-effective product development. Again, you have the possibility of being able to use the batch series of our known modular rotor / stator components without compromise

Its usefulness as e.g. a product developer lies in the following facts..

- ... That for the first time, you can fall back on a system which is absolutely the same structure as it is in the batch operation of the MICCRA laboratory series.
- ... That you can flexibly attach pipes, fittings, tanks (whether single or double-walled, closed, open), valves of any kind via Tri-Camp connections to the system and simulate your production more or less on a small scale.
- ... That you even can achieve product endfinenesses with a mechanical system, which lie in the nanometer range.

And at a cost that is unmatched. The gained knowledge can then be adopted into the next larger scale in pilot plant or production.



## 技术参数 Technical Data DFK 1.0

刀头套件	Tool set	20 mm	30 mm
循环量(水):	Flow capacity (ref. to H2O):	15 l/min	26 l/min
最大剪切速度:	Max. peripheral speed:	30 m/s	41 m/s
转子直径:	Rotor diameter:	15 mm	23 mm
定子直径:	Stator diameter:	20 mm	30 mm
摩氏硬度:	Mohs-Hardness:	最大 6	最大 6
最大压力:	Max. pressure:	8 bar	8 bar
真空度:	Reachable vacuum:	1 mbar	1 mbar
杀菌/除污:	Sterilization/Decontamination:	在线清洗	在线清洗