

IKA®

IKA® CONTERNA



Designed
to work perfectly

The continuous kneading and
extrusion machine in new design

CONTERNA HKC 6/2,0

The laboratory model of the CONTERNA has been redesigned and improved in its performance to enlarge the range of applications.



The main improvements

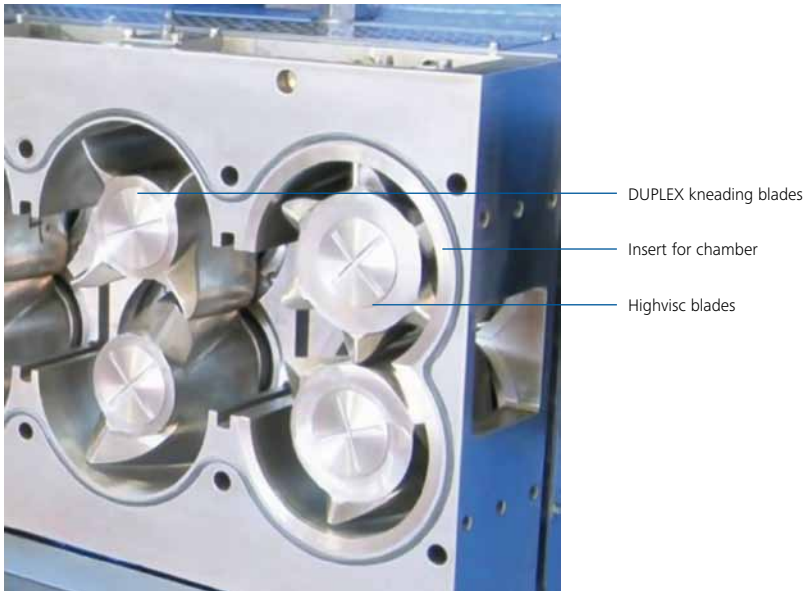
- 80% more power for the standard drive
- Heatable/coolable kneading blades
- Higher efficiency of the drive system by VFC controlled motors
- Optional Highvisc blade design for 250% more shear force
- Compact design, less space requirement

The new features

- Good access to kneading blades and chambers by rotatable cover and chamber block
- Highvisc blades:
 - High shear forces up to 250%
 - Replace the former roots pump blades
- Changed speed ratio of the pump blades:
 - Old 1 : 1
 - New 2 : 1
- More flexibility:
 - The different tools can be installed in each chamber, adaptable to different applications
 - Same gear design for the different kneading and pumping tools

New design for heavy-duty applications

The advantages of the CONTERNA compared to batch machines



- High shear forces (up to 250% with the new Highvisc blades)
- Heatable/coolable kneading blades
- Removable kneading chamber block for easier cleaning (option)
- Dosing of the product components possible in different chambers
- Constant product quality
- Better ratio of required space to production capacity (minimized building costs)
- Less material in the machine itself

Kneading chamber with Highvisc kneading tools

Technical data

Machine type		HKC 6/2,0	
Design data		Dimensions and weights	
Flow capacity	approx. 25 l/h	Overall dimensions (L x H x W)	1860 x 1520 x 1300 mm
Density	6 - 8 kg/dm ³	Weight	approx. 2 t
Viscosity	approx. 8000 Pas at 10/s		
Design temperature	60°C		
Kneading chamber		Pumping chamber	
Number of working chambers	5	Number of working chambers	1
Number of kneading drives	5	Number of kneading drives	1
Total volume per chamber	2 l	Total volume per chamber	2 l
Drive power per chamber	4 kW	Drive power per chamber	2,2 kW
Speed of the lower, fast rotating kneading tools	3 - 33 rpm	Speed of the lower, fast rotating kneading tool	1 - 10 rpm
Speed ratio of lower to upper kneading tool	2 : 1	Speed ratio of lower to upper kneading tool	2 : 1

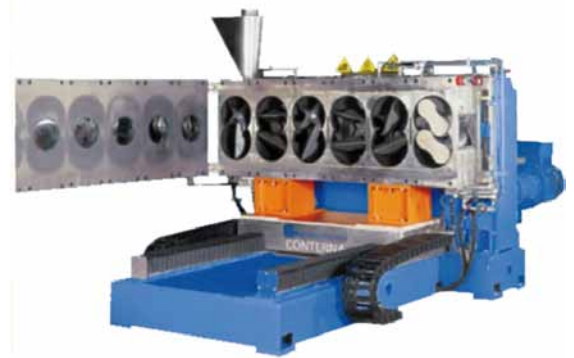
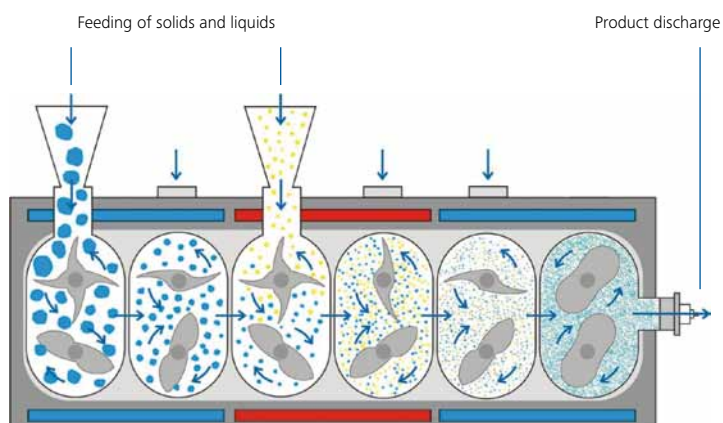
The technique

The working principle of the CONTERNA

The CONTERNA consists of 6 horizontal kneading chambers arranged in series with each one drive. All 6 chambers incl. the mixer gears are combined to one chamber block.

Liquid and solid product components can be fed into each chamber (except the last one) via openings on the top side of the chambers. The product is discharged from the 6th chamber via either a discharge nozzle, a flange connected gear pump or a flange connected discharge extruder, depending on the material and its viscosity.

The kneading chamber block together with the kneading chamber cover fixed to it can be hydraulically removed resp., in case of the HKC 6/2,0, swiveled aside for cleaning, service or maintenance purposes. The kneading chamber block is horizontally moved by means of a hydraulic cylinder, while it is guided by linear guidings that are fixed to the machine frame. The hydraulic cylinder is driven by a hand pump.



HKC 6/25



HKC 6/50 with discharge extruder



HKC 6/100

The standard execution is equipped with 6 chambers. Depending on the product requirements the number of chambers can be reduced or increased.

Available sizes

- HKC 6/2,0 flow capacity approx. 25 l/h
- HKC 6/5 flow capacity approx. 200 l/h
- HKC 6/10 flow capacity approx. 400 l/h
- HKC 6/25 flow capacity approx. 1.000 l/h
- HKC 6/50 flow capacity approx. 2.000 l/h
- HKC 6/100 flow capacity approx. 3.800 l/h



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