

Data Sheet

DISPAX-REACTOR® DRS 2000/50



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The DISPAX-REACTOR® DRS is an inline ultra high shear dispersing machine used to achieve the finest micro-emulsions and suspensions. Extremely high shear rates (up to 190.000 1/s) combined with a fine generator geometry enable crushing of droplets and solids particles down to the nanoscale. The resulting product has long-term stability which reduces the need for emulsifying agents and thickeners. Because of the extremely high energy density, other dispersing aids can be reduced or possibly eliminated.

The DRS is usually equipped with a two-stage rotor-stator system (generators). The high tip speed of 40 m/s (10.000 fpm) often negates the need for a third stage. The DRS, designed with the same high quality features as the ULTRA-TURRAX® UTL and the DISPAX-REACTOR® DR, is especially well suited for challenging pharmaceutical applications.

The high shear dispersing machine DISPAX REACTOR® DRS 2000 is available in five sizes. The possible throughput (H₂O) varies from 700 to 40.000 l/h. All machine sizes work with the same circumferential speed of the rotor which provides for a reliable scale-up.

Technical Data	
Flow rate (max.)	40000 l/h
Viscosity (max.)	5000 mPas
Motor power	200 kW
Motor power EExe..	160 kW
Motor speed	1500 rpm
Tip speed	40 m/s
Speed regulation possible	yes
Dispersing tool	variable
Single mechanical seal	yes
Double mechanical seal	yes
Lipseal	no
Process pressure (max.)	16 bar
Process temperature, max.	160 °C
Flame proof possible	yes
Cleaning	yes CIP
Sterilisation	yes SIP
Ident. No.	000DRS200050