DYNAchew - Chewing Simulator

SCAN ME

General Information

Servo-electric testing machine applying mechanical loads to simulate chewing movement in three directions:

Load frame

- 3 servo-electric drives (2 in XP table, 1 for Z translation)
- multiaxial loads
- ·F_x/F_y/F_z- load measurement
- temperature unit with integrated media conditioning
- operation via the DYNA-CLC measurement and control electronics with DYNA-TCC test software
- base plate on X-Y-table: 150 x130 mm
- compact design on robust workbench
- paintwork: RAL 5001/6018

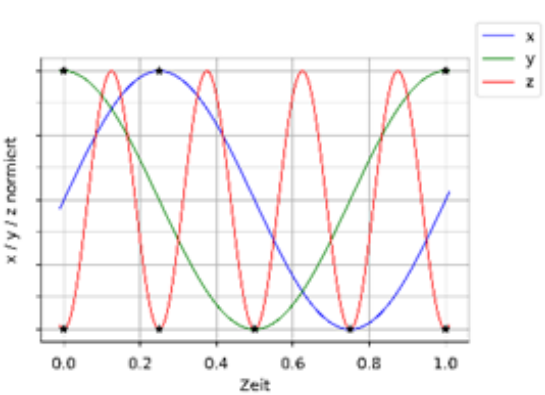
Maximum possible loads/ strokes of each direction

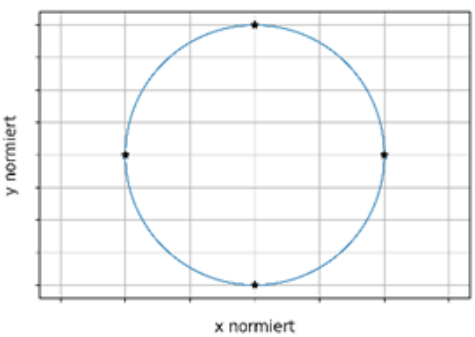
- F_x/F_y : 1000 N short time peak load and 550 N continuous load
- S_x/S_Y : max. 60 mm (± 30 mm)
- F_z : 1000 N short time peak load and 550 N continuous load
- S_z : max. 50 mm (± 25 mm)

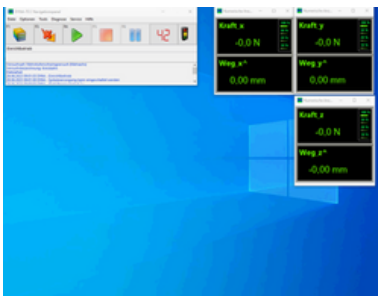
NOTE: With temperature unit the maximum possible stroke in x- and y-direction is approx. 25 mm (± 12,5 mm).

Software module " DYNAchew 3ax"

- operation and evalution via DYNA-TCC testing software
- synchronized and controlled movement of the three axes
- software module "multistep-cyclic-test" for cyclic chewing movement
- operation in force or desplacement-contolled mode
- temperature control parameterization during test: constant or ramp (cyclic)







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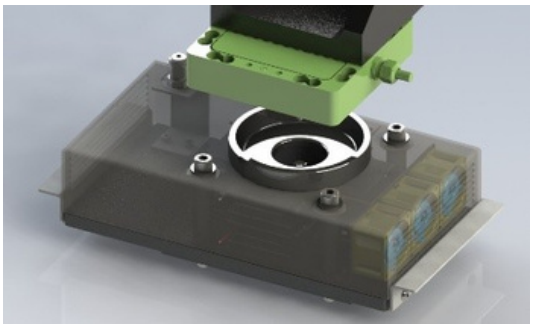
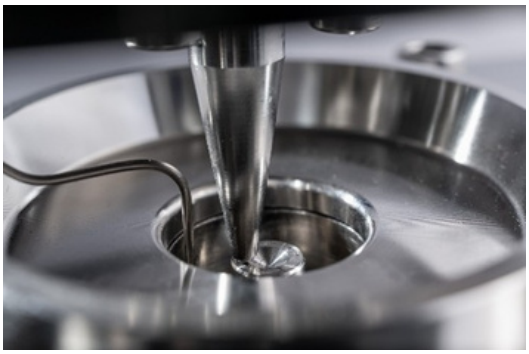
Temperature unit with sample holder

- removable module for easy handling and changing of the test sample
- liquid media reservoir with an inner diameter of 32 mm and inner height of 33 mm
- built in temperature sensor
- splash ring
- stainless steel design
- temperature range from 5 °C to 55 °C, constant or ramp
- thermo-cycle time approx. 5 min from 5 °C up to 55 °C and 10 min down from 55 °C to 5 °C
- operation without temperature unit is possible for e.g. testing of dental bridges



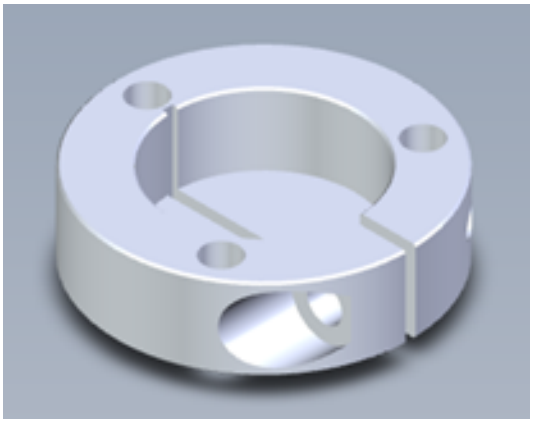
Test stamp

- interchangeable, conically tapered test stamp
- test stamp height h = 45 mm
- test tip diameter d = 4 mm
- test stamp made of stainless steel



Sample holder

- cylindrical sample holder as clamping ring
- inner diameter d=18 mm
- inner height h = 7 mm
- clamping screw M3
- 3 screws M3 for mounting on base plate
- sample holder made of stainless steel



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