

Tribometer for sliding and slip-rolling

Parameter	MT 1 and MT 2, HT 1 and HT 2, VKA, A 135 I and II, 2Disk
Sliding velocity, v	0.01 ... 10 m/s
Rotational speed, n	10 ... 4000 min ⁻¹
Normal force, F_N	0.5 ... 5000 N
Ambient pressure, p	1024 mbar
Relative humidity, r.h.	<5 ... 100 %
Temperature, T	RT ... 1000 °C
Surrounding medium	Laboratory air, hot steam, inert gases
Tribological quantities	Coefficient of friction (COF), linear wear (W_l), electrical contact resistance (eR)

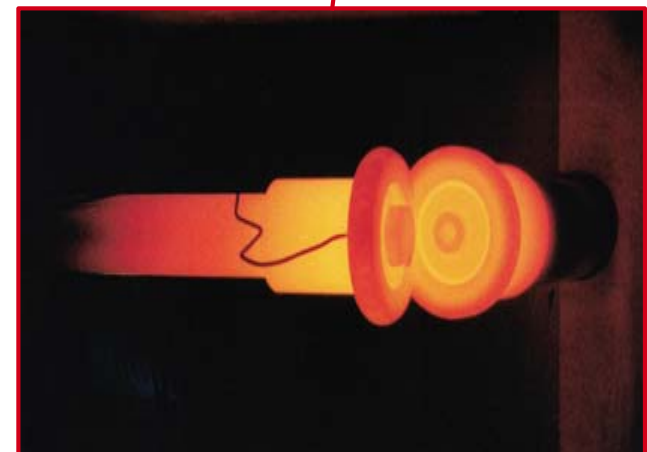
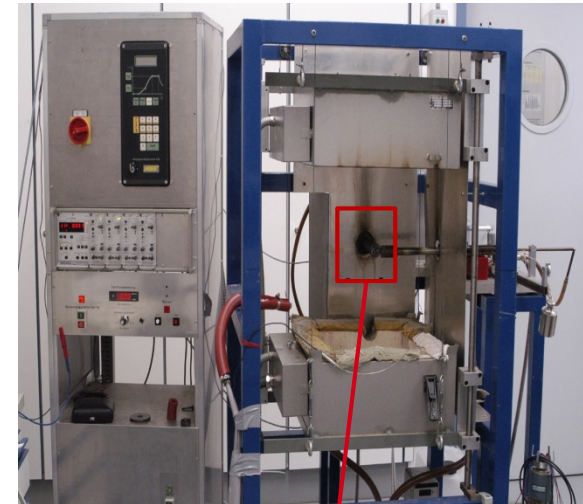
MT 1 and MT 2 Tribometer for Moderate Temperatures

	MT 1, MT 2
Rotational speed, n	10 ... 3000 min ⁻¹
Sliding velocity, v	0.01 ... 5 m/s
Normalkraft, F_N	0.5 ... 100 N
Ambient pressure, p	1024 mbar
rel. Luftfeuchte, R.H.	30 ... 50 %
Temperature, T	RT ... 300 °C
Surrounding medium	Laboratory air
Tribological quantities	Coefficient of friction (COF), linear wear (W_l), electrical contact resistance (eR)

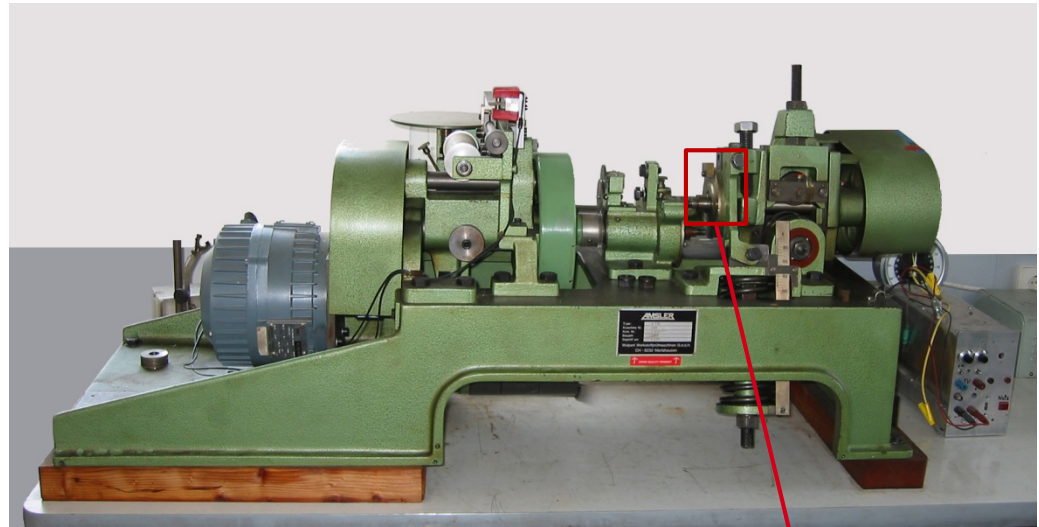


HT 1 and HT 2 High-Temperature Tribometers

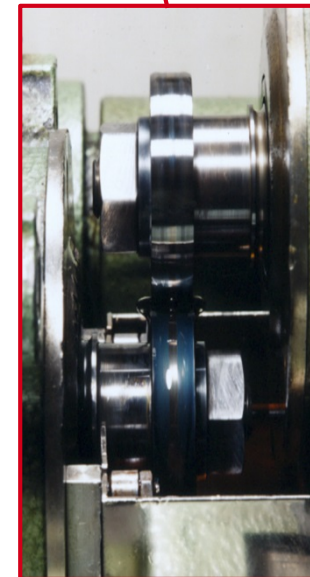
	HT 1, HT 2
Rotational speed, n	10 ... 4000 min^{-1}
Sliding velocity, v	0.01 ... 10 m/s
Normalkraft, F_N	0.5 ... 40 N
Ambient pressure, p	1024 mbar
Temperature, T	RT ... 1000 °C
Surrounding medium	Laboratory air, hot steam, inert gases
Tribological quantities	Coefficient of friction (COF), linear wear (W_l)



AMSLER-type Wear and Slip-Rolling Test Machines

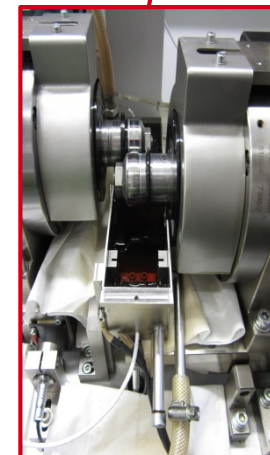
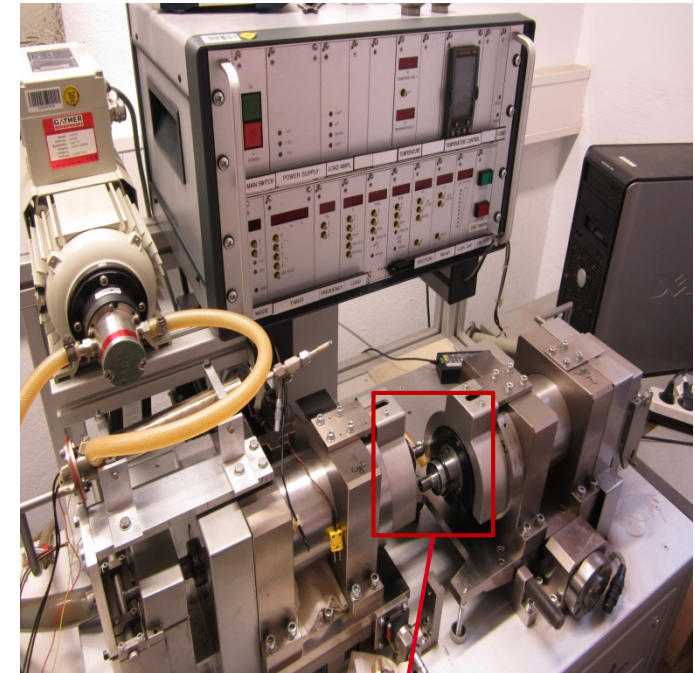


	A 135 I, A 135 II
Rotational speed, n	200; 400 min^{-1} (10% slip)
Max. Sliding velocity, v	1.6 m/s
Normalkraft, F_N	20 ... 2000 N
Temperature, T	RT ... 120 °C
Surrounding medium	Laboratory air
Tribological quantities	Coefficient of friction (COF)



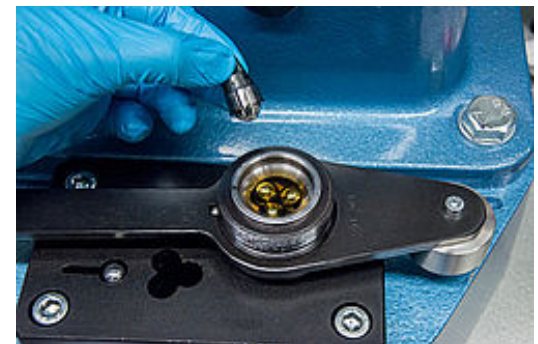
Test machine for slip-rolling resistance with continuously variable slip (0-100%)

	2DISK
Rotational speed , n	5 ... 3000 min ⁻¹
Sliding velocity (for 100% slip), v	0 ... 10 m/s
Normalkraft, F_N	100 ... 5000 N
Ambient pressure, p	1024 mbar
Temperature, T	RT ... 140 °C
Surrounding medium	Laboratory air
Tribological quantities	Coefficient of friction (COF), linear wear (W _l), oil film thickness



Four Ball Apparatus VKA (SHELL)

	VKA
Rotational speed, n	1500 min ⁻¹
Max. sliding velocity, v	0.57 m/s
Normalkraft, F_N	80 ... 4900 N
Ambient pressure, p	1024 mbar
Temperature, T	RT
Surrounding medium	Laboratory air
Tribological quantities	Coefficient of friction (COF)



ST1 Standard Tribometer

	ST1
Sliding velocity, v	0.01 ... 5 m/s
Normalkraft, F_N	10 ... 1000 N
Ambient pressure, p	1024 mbar
Temperature, T	RT ... 200 °C
Surrounding medium	Laboratory air
Tribological quantities	Coefficient of friction (COF), linear wear (W_l)

