



DANOBAT

DLR/DHD/DHD+ UNDERFLOOR WHEEL LATHE

The modern design of the DANOBAT underfloor wheel lathe combines the latest industry know-how with a long experience of machine-tool construction to provide a specifically designed and cost saving solution for wheelset machining on passenger, locomotives, freight, high-speed or light rail vehicles without the need to remove the axle from the bogie.



The DANOBAT underfloor wheel lathe range consists of three models.

CHARACTERISTICS		DLR	DHD	DHD+
Track gauge	mm	1000 - 1676	1000 - 1676	1000 - 1676
∅	mm	375 - 1250	350 - 1400	350 - 1400
Profile width	mm	75 - 150	75 - 155	75 - 155
Maximum axle load	kg	18.000	30.000	40.000
Drive power	kW	4x9	2x30	2x30
Maximum chip section/tool post	mm ²	6	10	10
Z axis fast speed	m/min	5	5	5
X axis fast speed	m/min	3	3	3
Wheels turning cutting speed	m/min	0-215	0-310	0-310
Brake disk cutting speed	m/min	20-120	20-120	20-120
Machine weight	kg	18.000	23.000	25.000
∅ difference both wheels of a wheelset	mm	≤ 0,1	≤ 0,1	≤ 0,1
∅ difference wheels of a bogie	mm	≤ 0,3	≤ 0,3	≤ 0,3
Radial run-out wheel	mm	≤ 0,1	≤ 0,1	≤ 0,1
Lateral run-out wheel internal face	mm	≤ 0,2	≤ 0,2	≤ 0,2
Deviation from nominal profile geometry	mm	≤ 0,2	≤ 0,2	≤ 0,2
Brake disc lateral run-out	mm	≤ 0,05	≤ 0,05	≤ 0,05
Surface roughness of brake disc	µm	≤ 4,3	≤ 4,3	≤ 4,3
Architecture		Single or Tandem	Single or Tandem	Single or Tandem

COMPLETE SOLUTIONS FOR ROLLING STOCK MAINTENANCE

The interaction between wheels and rails is one of the key factors on the dynamical behaviour of rolling stock, and consequently, on the safety and comfort of railway vehicles.

The design of the wheels affects to the vehicle's behaviour and it is the railway operator's responsibility to maintain the wheel profiles in accordance with applicable national and international standards.

Wheel wear is not only harmful to the rails and the railway vehicles. Many maintenance costs are also the result of a poor wheel wear management. Managing optimum wheel profiles leads to reduced costs in rolling stock maintenance.

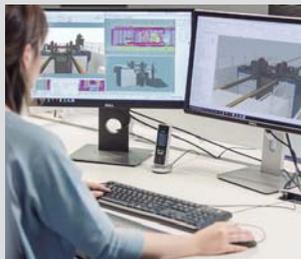
The Danobat model DWPM Wheel Profile Measuring System helps operators and maintainers by automating the diagnosis of the wheels. It measures the wheel profile to transfer the data to other equipments.

DWOS software integrates both equipments: UFWL and DWPM in order to get a complete solution with tangible benefits for the operator.

- It extends the useful life of railway fleet wheelsets by 25%.
- Reducing operational costs
- Increasing rail fleet safety and availability



1. Dynamic measuring system



2. Predictability & control of wheel wearing



3. Smart reprofiling

