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T Machinery a.s.

The company T Machinery a.s. has a new testing polygon, primarily determined for type and piece testing of produced mining devices. Basic component of the testing room is a new transformer station providing a wide range of supply voltage.





Testing Room



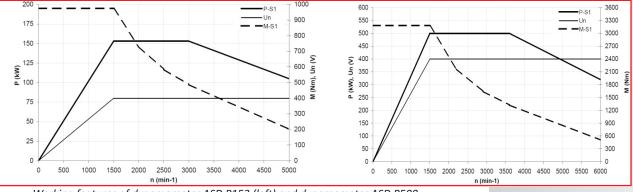
Available power supplies for testing devices:

Nominal voltage [V]	Nominal power [kVA]	Nominal frequency [Hz]	Regulation of nominal voltage [%]	Electric syste m
400 / 500 / 660	120	50	-5; -10	IT
660	150	0 to 320	180 V to 690 V	
1000 / 1140	630	50	-20; -15; -10; -5; +5; +10; +15; +20; +25	
3300 / 6000	2500	50	-20; -15; -10; -5; +5; +10; +15; +20; +25	IT

Motor load and gear system can be done by the help of two asynchronous dynamometers recuperating energy of the testing system back to power supply network. Both dynamometers are equipped with digital control unit enabling operation in drive regime or load and revolution or moment coupling. Control unit is connected to PC which contains program for analysis and measured data processing.

Technical parameters of dynamometeres:

common parameter of all manners				
Parameter	Dynamo metr ASD P153	Dynamometr ASD P500		
Nominal power	153 kW	500 kW		
Revolutions	1500 - 3000 min ⁻¹	1500 - 3600 min ⁻¹		
Moment	974 - 487 Nm	3182 - 1326 Nm		
Maximal revolutions / power	5000 min ⁻¹ / 105 kW	6000 min ⁻¹ / 320 kW		



Working features of dynamometer ASD P153 (left) and dynamometer ASD P500.



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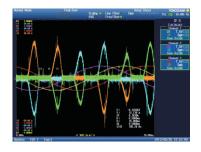
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Dynamometer ASD P153 is placed onto a fixed base. Device loaded herewith is anchored to lifting table with dimensions 1 000 x 1 500 mm and lifting capacity 1 500 kg. Dynamometr ASD P500 is placed onto cast-iron clamping plate embedded into floor that has dimensions 4 500 x 6 300 mm. Testing device is clamped to the same plate and supported to the same axial height with dynamometer. Gantry crane moving over testing room with lifting capacity of 25 000 kg is designed for handling with burdens.





The testing room is equipped with precise performance-related analyser YOKOGAWA WT 1800. By the help of external converter a three-phase measurement of current up to 1000 A. The testing room is further equipped with 16 channel mobile temperature measurement unit (12x sensor Pt100, 4x K type thermoelement). The unit enables measurement of temperatures in the range from 0 to 200°C. When using thermoelements it is possible to measure temperatures directly onto live parts up to voltage of 660 V.





For cooling of tested devices the testing room is equipped with own cooling aggregate that is independent upon public water pipeline. This cooling aggregate has totally two circuits. The first circuit is an opened one, water, with maximum flow of 200 l/min at maximum pressure of 2.75 MPa. The second circuit is a closed one with anticorrosive coolant. This one has maximum flow of 50 l/min and maximum pressure of 1.2 MPa.

The company T Machinery a.s. offers both processing of technical tests according to own customer's requirements, and also direct lease of the whole working place to professional public.

Testing Room

