





picture: Gildemeister

## Manually Single-Plane Balancing

- rotating workpieces' tables with low RPM range
- asymmetrical workpieces
- milling - and (vertical) turning machines

Unbalance is on machine tools the most common source of vibrations. Balancing of the tool holder and the spindle can be of great help.

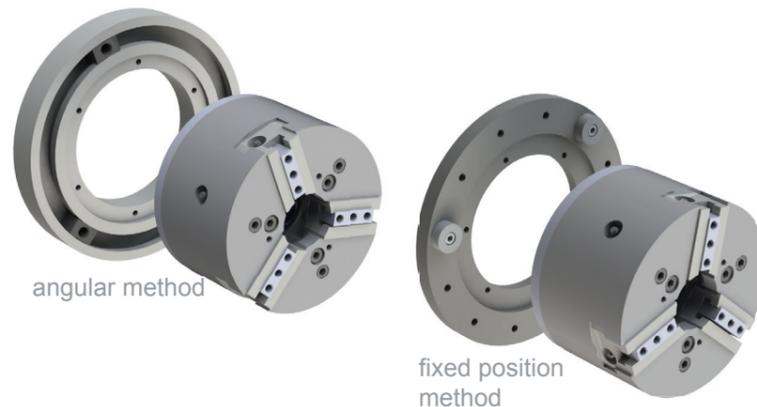
What has become a standard over the last decades on grinding machines, has gained interest also both on combined (milling and turning) and on vertical turning machines especially when asymmetrical workpieces have to be handled. Keeping the vibration as low as possible increases the working life of the bearings as well as of the tools and results in a better workpiece's surface quality.

The P6001FD module is the last addition to the Dittel pre-balancing P6000 family and is purposely designed for the use on machine tools rotating at low RPM.

The workpiece table's unbalance on a pre-defined plane is detected during a pre-balancing cycle and subsequently compensated fixing known balancing weights on calculated position on the rotating table.

The P6001FD suggests the best balancing weight to be used out of a freely programmable weights' table. A fixed positions algorithm is used to determine the best positions out of a maximum of 24 in which to fix two or three weights. The electronics offers also a continuous monitoring function of the vibration level of the rotating table.

The P6001FD can be programmed, used and its functions visualized through the machine control unit or any Windows based PC. The signals can be exchanged to and from the machine via a ProfiBUS or static I/Os connection.



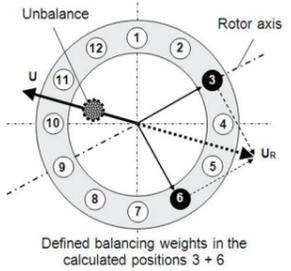
angular method

fixed position method

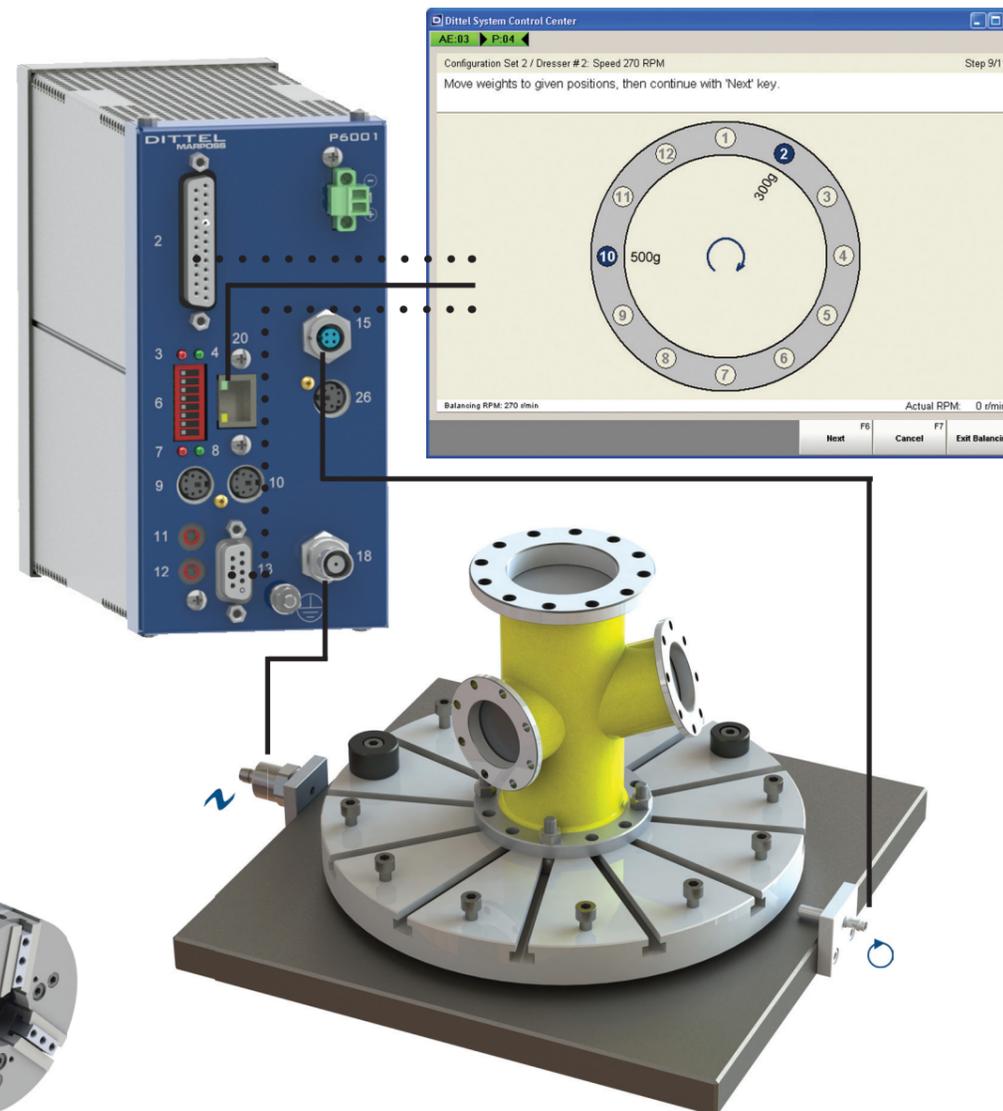
Mass Table	Weights
W1	100.00 g
W2	200.00 g
W3	300.00 g
W4	400.00 g
W5	500.00 g
W6	600.00 g
W7	700.00 g
W8	800.00 g
W9	900.00 g
W10	1000.00 g
W11	2000.00 g

## Pre-Balancing with the fixed position method:

Compensation of balancing by adding defined weights (e.g. screws, measure weights) at specific positions. Maximally 24 defined places with 2-3 balancing weights.



Defined balancing weights in the calculated positions 3 + 6



## Special features

Filtered-RPM-Unbalance monitoring for RPM range 80-6000 1/min

Continuous unbalance monitoring

Intelligent and customizable graphical user interface

ProfiBUS and static I/Os communication channels

Visualitazion through Ethernet connection

Simple software integration

Simple factory reset function in case of servicing (series setup)

Individual adjustable user levels

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