DEWETRON

OXYGEN TRAINING
> Orbit Plot

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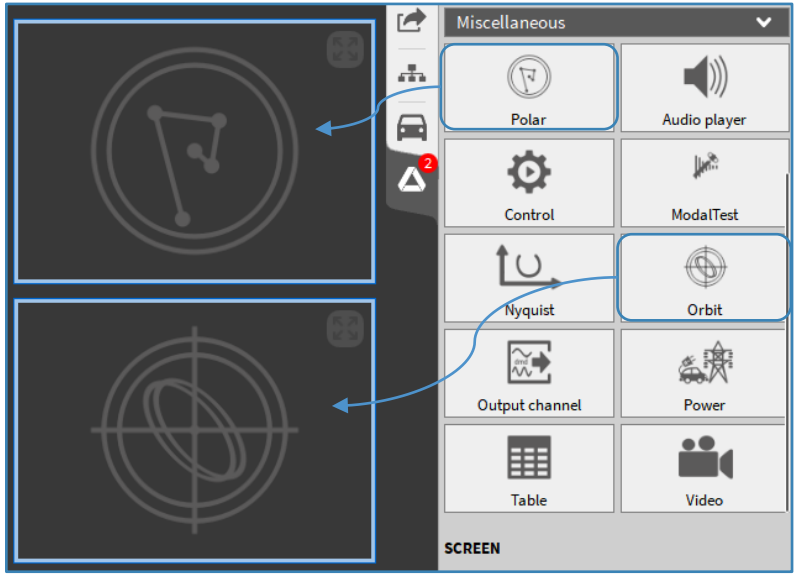

ORBIT PLOT OVERVIEW

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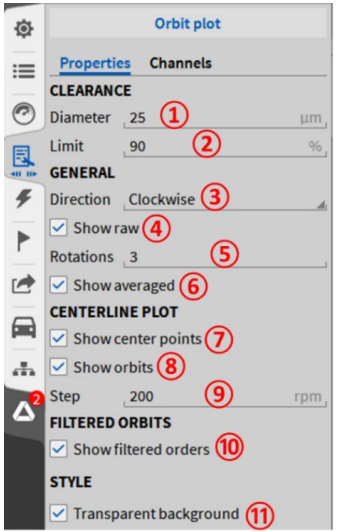
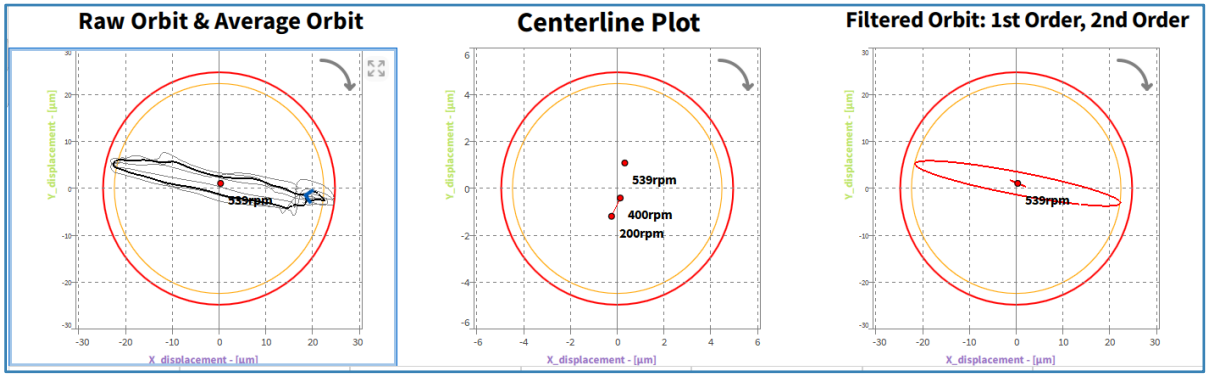
①	To scale the plot with the red circle, the Diameter can be set, which has the unit of the X-deflection channel
②	The limit is in relation to the clearance diameter in %.
③	Determine the arrow in the right top for documentation purposes
④	Show the orbit over the number of rotations set in. ⑤
⑤	Define the number of rotations seen in Show raw and which can be averaged.
⑥	Show the averaged orbit, over x rotations set in ⑤
⑦	Show the center of the rotation orbit every x rpm steps.
⑧	Show the raw orbit corresponding to the rpm step.
⑨	Define the rpm step at which the center point and it's raw orbit is recorded
⑩	Show one or more orders from the Order analysis as a Orbit.



The Orbit Plot Instrument has three main visualization options, which can be use simultaneously.

The required channels to use the instrument differ and are described in more detail in the following slides.



ORBIT PLOT – Raw Orbit & Average Orbit

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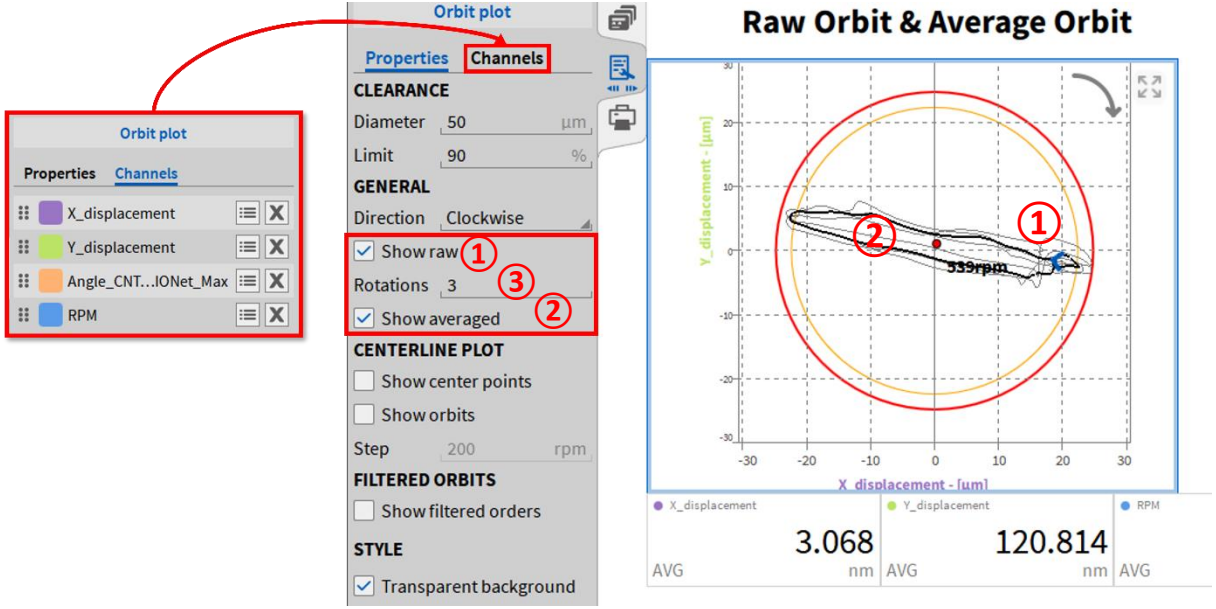
	The required channels for the Raw orbit are one channel for X-displacement and one for the Y-displacement. For the averaged channel also the angle and RPM channel has to be assigned
①	The grey orbit relates to the raw orbit.
②	The black bold orbit is the average of in this case 3 orbit rotations
③	To change the number of displayed raw orbits and equally the number of orbits which are averaged.



ORBIT PLOT – Centerline Plot

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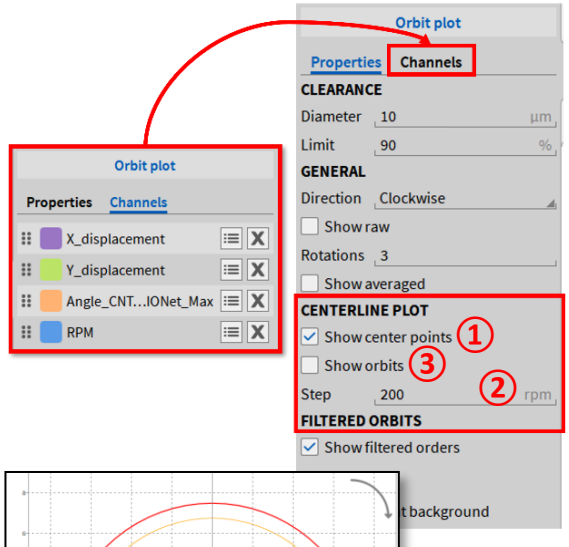
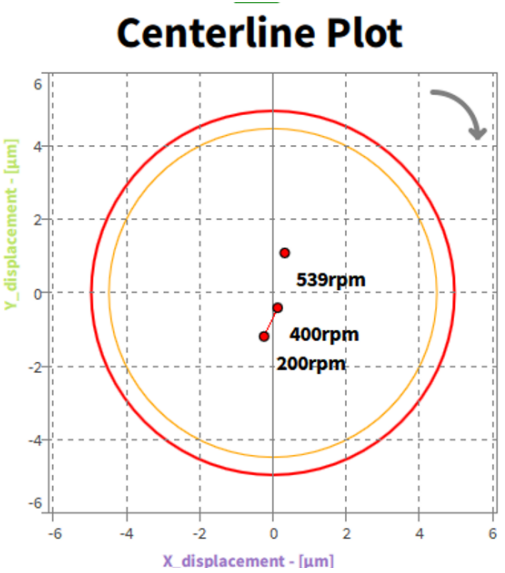
	The required channels for the Centerline Plot are again one channel for the X-displacement and one Y-displacement, the angle and the speed.
①	The center points for the defined steps are saved as snapshot with the raw orbits corresponding to the center point
②	The rpm steps define at which rpm the center point is calculated
③	Show orbit displays the raw orbit of whom the center points is are calculated.





ORBIT PLOT – Filtered Orbit

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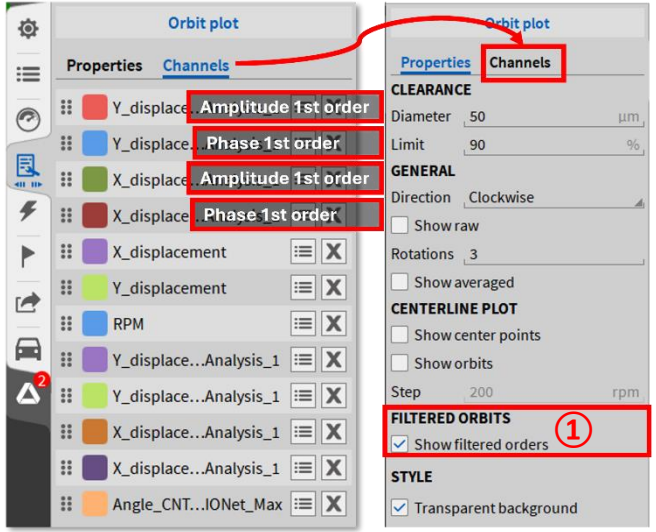
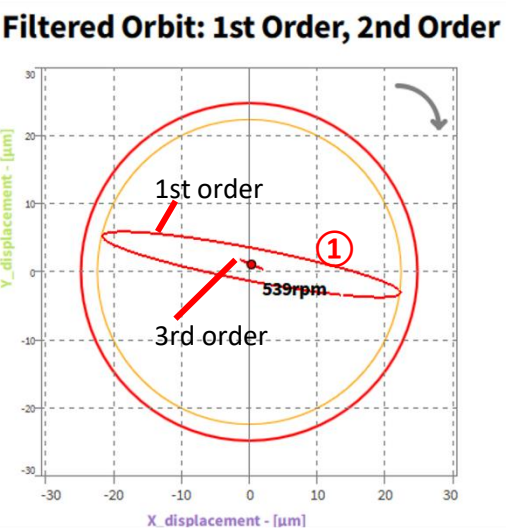
	The required channels for the Filtered Plot are all Amplitude and Phase channels in X and Y direction per Order in addition to the X and Y-displacement, speed and angle channel
①	Show filtered orders, displays all assigned orders in the filtered orbit plot. This order channels are created in the order analysis which use the same XY, angle and speed channels





POLAR PLOT OVERVIEW

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	The polar plot only has one visualization option for vector channels.
①	Like in the Orbit Plot, the Polar Plot is scaled by the red circle diameter.
②	The Limit is in reference to the clearance diameter.
③	Like steps can be defined speed in rpm steps or by time in seconds. Similar to the Centerline Plot, snapshots of the length and angle of the assigned Amplitude and phase is saved.
④	This field is either rpm or time, depending on the steps selection in ③.