Round Features Scanning Settings for VastXXT (Millimeters)

Nominal Diameter	Maximum Speed					Points			Filter
	Functional			Process					
	Location	Size	Form	Location	Size	Minimum Number	Degrees of Arc	Pts/Degree	UPR
< 8	2	2	2	5	5	150	400	0.4	15
8-25	5	5	3	5	5	500	380	1.3	50
26-80	5	5	3	10	10	1300	380	3.4	150
81-250	10	10	5	20	20	4500	380	11.8	500
> 250	15	15	10	25	25	13000	380	34.2	1500

STRATEGIES

Circle vs Cylinder: Measure a cylinder if the diameter of the bore is smaller than the depth or if required by a callout on the print. Otherwise measure a circle centered along the depth of the bore.

Circles: 1 circle autopath

Cylinders/Cones: 3 circle paths or 4 turn helix if the depth is less 3 times the diameter, otherwise use 5 circle paths or a 6 turn helix. To calculate the number of points on a helix, multiply the number of rotations times 360 times pts/degree.

SPEED

Use the calculate button and, if prompted, select the characteristic furthest down the list that you will be checking. Set the speed to 67-75% of the calculated speed. Make sure the calculated speed is less than the maximum listed in the table above. If not, change the speed to the maximum.

OUTLIERS

Inside & Outside = 3, Adjacent points = 5, Pre-filter = 10-5000 UPR (default is mm). When you switch to UPR for the pre-filter you will get a message about using circles paths, click OK.

FILTERS

Use the default values for everything except UPR (see table above) unless you are attempting to correlate with someone using the official Zeiss cookbook. In that case use a Gauss filter instead of Spline.

Round Features Scanning Settings for VastXXT (Inches)

| Nominal Diameter | Maximum Speed | | | | | Points | | | Filter |
| | Functional | | | Process | | | | | |
	Location	Size	Form	Location	Size	Minimum Number	Degrees of Arc	Pts/Degree	UPR
< 0.315	0.079	0.079	0.079	0.197	0.197	150	400	0.4	15
0.315-1.0	0.197	0.197	0.118	0.197	0.197	500	380	1.3	50
1.001-3.15	0.197	0.197	0.118	0.394	0.394	1300	380	3.4	150
3.151-10.000	0.394	0.394	0.197	0.787	0.787	4500	380	11.8	500
>10.000	0.591	0.591	0.394	0.984	0.984	13000	380	34.2	1500

STRATEGIES

Circle vs Cylinder: Measure a cylinder if the diameter of the bore is smaller than the depth or if required by a callout on the print. Otherwise measure a circle centered along the depth of the bore.

Circles: 1 circle autopath

Cylinders/Cones: 3 circle paths or 4 turn helix if the depth is less 3 times the diameter, otherwise use 5 circle paths or a 6 turn helix. To calculate the number of points on a helix, multiply the number of rotations times 360 times pts/degree.

SPEED

Use the calculate button and, if prompted, select the characteristic furthest down the list that you will be checking. Set the speed to 67-75% of the calculated speed. Make sure the calculated speed is less than the maximum listed in the table above. If not, change the speed to the maximum.

OUTLIERS

Inside & Outside = 3, Adjacent points = 5, Pre-filter = 10-5000 UPR (default is mm). When you switch to UPR for the pre-filter you will get a message about using circles paths, click OK.

FILTERS

Use the default values for everything except UPR (see table above) unless you are attempting to correlate with someone using the official Zeiss cookbook. In that case use a Gauss filter instead of Spline.

Linear Features Scanning Settings for VastXXT (Millimeters)

Shortest Length	Surface Finish (µm)	Maximum Speed	Maximum Step Width	Filter λc
--------	Ra < 0.025 Rz < 0.1	3	0.031	0.25
< 25	--------	3	0.1	0.8
25-80	Ra 0.025-0.4 Rz 0.1-1.6	5	0.1	0.8
80-250	Ra 0.4-3.2 Rz 1.6-12.5	10	0.31	2.5
> 250	Ra > 3.2 Rz > 12.5	20	1	8

STRATEGIES
Planes: Measure around the outside 2-5mm from the edge and in the middle of the surface.

Lines: Measure the entire length of the line

SPEED
Starting speed should be 10% of the shortest side. Make sure the calculated speed is less than the maximum listed in the table above. If not, change the speed to the maximum.
Use the surface finish column when checking Flatness, Parallelism, Perpedicularity, Angularity, or Profile if surface finish information is given on the print; otherwise use the Shortest Length column.

OUTLIERS
Inside & Outside = 3, Adjacent points = 5, Pre-filter = 0-10 mm.

FILTERS
Use the default values for everything except wavelength (see table above) unless you are attempting to correlate with someone using the official Zeiss cookbook. In that case use a Gauss filter instead of Spline.

Linear Features Scanning Settings for VastXXT (Inch)

Shortest Length	Surface Finish (µin)	Maximum Speed	Maximum Step Width	Filter λc
--------	Ra < 1 Rz < 4	0.118	0.001	0.25
< 1.000	--------	0.118	0.004	0.8
1.000-4.000	Ra 1-15 Rz 4-60	0.197	0.004	0.8
4.001-10.000	Ra 16-125 Rz 61-500	0.394	0.012	2.5
> 10.000	Ra > 125 Rz > 500	0.787	0.039	8

STRATEGIES

Planes: Measure around the outside 0.1-0.2 inch from the edge and in the middle of the surface.

Lines: Measure the entire length of the line

SPEED

Starting speed should be 10% of the shortest side. Make sure the calculated speed is less than the maximum listed in the table above. If not, change the speed to the maximum.

Use the surface finish column when checking Flatness, Parallelism, Perpedicularity, Angularity, or Profile if surface finish information is given on the print; otherwise use the Shortest Length column.

OUTLIERS

Inside & Outside = 3, Adjacent points = 5, Pre-filter = 0-10 mm.

FILTERS

Use the default values for everything except wavelength (see table above) unless you are attempting to correlate with someone using the official Zeiss cookbook. In that case use a Gauss filter instead of Spline.