OmniSurf

...simplifies aspheres!

Powerful. Easy to use. Affordable.

| 10.000 | | | | |
|---|---|--|--|---|
| μm | | | | |
| -10.000 | | mm | | 25.0 |
| $Z = \frac{cx^2}{1 + \sqrt{1 - Ec^2}}$ | $\frac{1}{x^2} + A_1 x + A_2 x^2 + A_3 x^3$ | $+A_4x^4 + A_5x^5 + .$ | $A_6 x^6 + \dots$ | ⊻ Lim Y Limi |
| $Z = \frac{cx^2}{1 + \sqrt{1 - Ec^2}}$ mic Section Constant Radius: c = 1/r | | | ic Coefficients (1/mm^ | Y Lim (n-1))- |
| onic Section Constant | | Aspher | ic Coefficients (1/mm^ | Y Lim (n-1))- |
| nic Section Constant Radius: c = 1/r | | Aspher A2 | ic Coefficients (1/mm^ 0.000000000e+1 9.932847300e-0 | _ ⊻ Lim (n-1))- 000 |
| nic Section Constant Radius: c = 1/r C <u>c</u> (curvature) | -0.020242914 1/mm -49.4 mm | Aspher A2 A4 | ic Coefficients (1/mm^ 0.000000000e+1 9.932847300e-0 -8.875295700e-1 | Y Lim (n-1))- 000 07 011 |
| nic Section Constant Radius: c = 1/r C <u>c</u> (curvature) C <u>r</u> (radius) | -0.020242914 1/mm -49.4 mm | Aspher A2 A4 A6 A8 A1 | ic Coefficients (1/mm^ 9.932847300e-0 -8.875295700e-1 1.284956200e-0 0 -4.039481100e-1 | ⊻ Lim (n-1))- 000 , 007 011 115 , 017 |
| nic Section Constant Radius: c = 1/r C <u>c</u> (curvature) C <u>(</u> radius) C <u>O</u> ptimize Rad | -0.020242914 1/mm -49.4 mm | Aspher A2 A4 A6 A8 A1 A1 | ic Coefficients (1/mm^ 0.00000000e++ 9.932847300e-0 -8.875295700e-1 1.284956200e-0 0 -4.039481100e+ 2 0.00000000e++ | Y Lim (n-1))- 000 ↓ 07 011 115 ∩ 017 000 |
| nic Section Constant Radius: c = 1/r C <u>c</u> (curvature) C <u>(</u> radius) C <u>O</u> ptimize Rad | $\frac{0.020242914}{49.4} 1/mm$ itus $E = (1 + k) = (1 \cdot e^{2})$ | Aspher A2 A4 A6 A8 A1 A1 A1 | ic Coefficients (1/mm^ 0.000000000++ 9.932847300e-0 -8.875295700e-1 1.284956200e-0 -4.039481100e+ 2.0.000000000++ 4.0.000000000++ | ⊻ Lim (n-1))- 000 , 007 011 115 - 017 000 000 |
| nic Section Constant Radius: c = 1/r C g (curvature) C [(radius) C Dptimize Rac | $\frac{0.020242914}{49.4}$ 1/mm itus tr E = (1 + k) = (1 - e^2) | Aspher A2 A4 A6 A8 A1 A1 | ic Coefficients (1/mm ² 9.932847300e-0 -8.875295700e-1 1.2849562000 0.4.039481100e-0 2.0.00000000e+1 4.0.00000000e+1 6.0.00000000e+1 | ¥ Lim (n-1))- 000 . 011 115 0 017 000 000 000 |

Compatible with most profiling instruments!

Digital Metrology Solutions has developed the OmniSurf software package with two goals in mind:

- Incorporate every useful analysis methodology.
- Accommodate data from every available profiling instrument.

Keeping in line with those objectives, OmniSurf's aspheric analysis capabilities can be applied to data from more than 20 different instrument types* and the analytical tools are designed with both *power* and *user-friendliness* in mind.

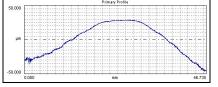
With just one click of the mouse...BeyTypically, the analysis of aspheres involves measuring a profile;
analyzing it compared to the nominal form; observing excessive
curvature in the residuals;
changing the base radius; re-analyzing;
...changing the base radius, re-analyzing,
...changing the base radius; re-analyzing...Omr
basic

OmniSurf takes the iteration out of aspheres.

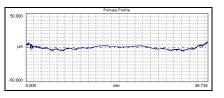
With just one click of the "Optimize Radius" button:

| Radius: c = 1/r | | |
|------------------------|--------------|------|
| C <u>c</u> (curvature) | -0.019954804 | 1/mm |
| C [(radius) | -50.11324428 | mm |
| Optimize Radius | | |

OmniSurf turns this:



into this!



*Additional data file formats can be incorporated upon request.

Beyond the asphere...

OmniSurf incorporates aspheric form as one of its basic reference geometries.

Datum Reference Least Squares Line Least Squares Arc Fixed Radius (user-specified) Polynomial (user-specified order) Asphere (user-defined) including: spheres, conics, ellipses

Accompanying these geometries is a full suite of filters:

Gaussian Spline Gaussian (adjustable tension) Valley Suppression (ISO 13565) Robust (Regression-based Spline Gaussian)

And over 80 parameters for the description of the residual profiles:

| Statistical | (averaging) |
|----------------|-------------------------|
| Peak-to-valley | (extreme) |
| Material Ratio | (material distribution) |
| Slope/Spacing | (hybrid) |
| Tribological | (spectral moments) |

For more information visit:

www.digitalmetrology.com