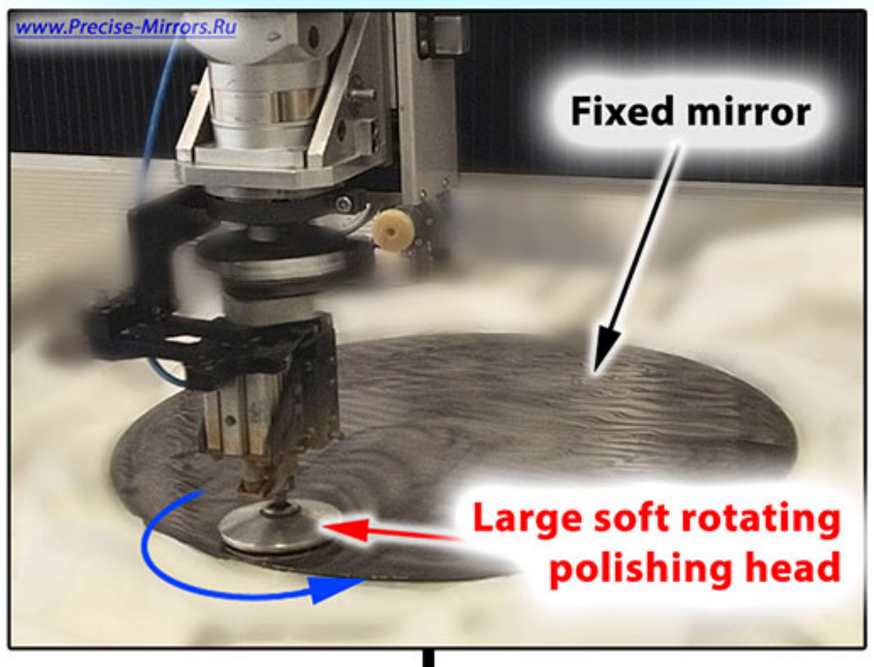
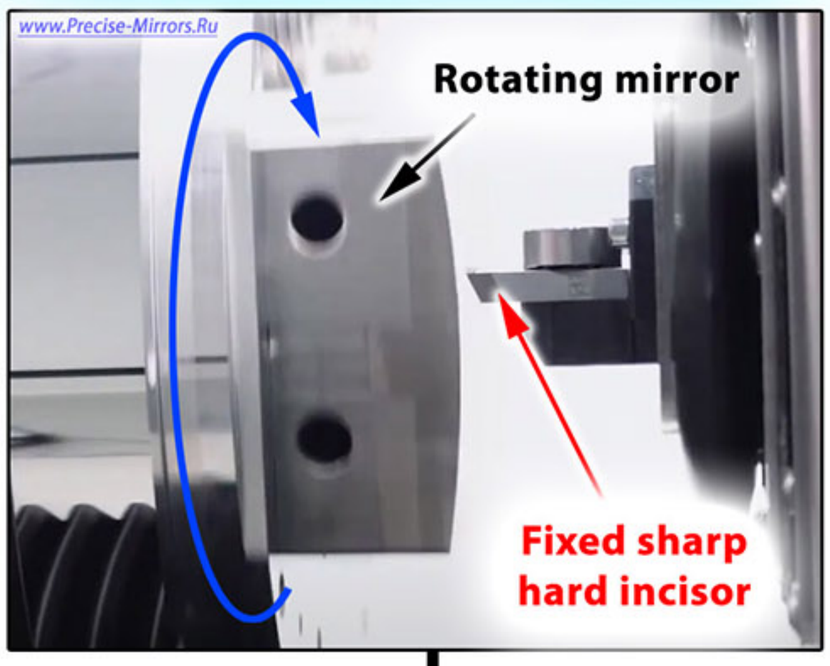
Two very different technologies
for optics surface formation:

“Polishing”
(example: classical TSAM)

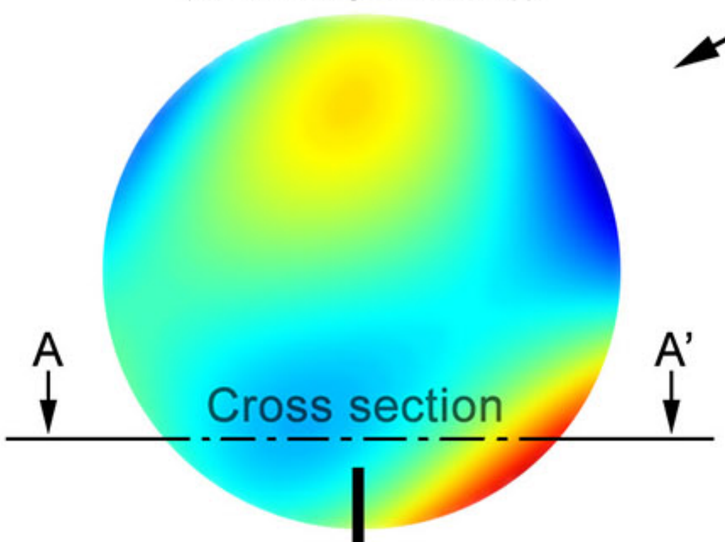


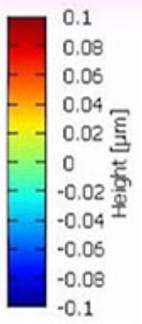
“Scratching”
(example: diamond turning)



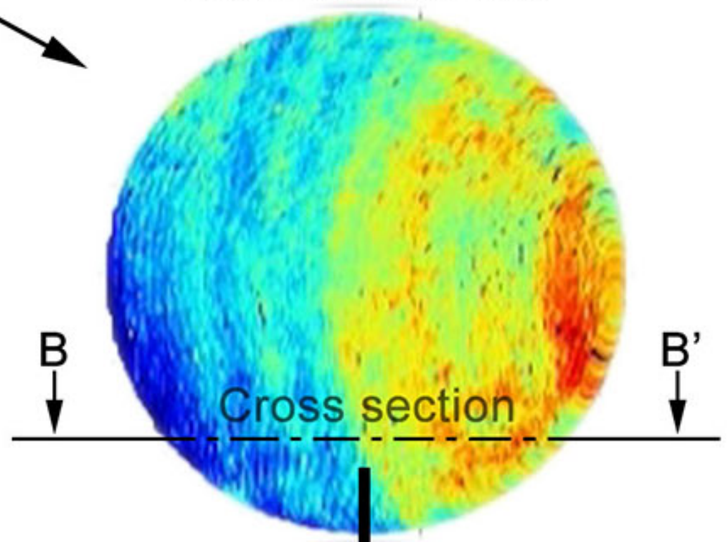
Nearly the same surface manufacture tolerance:
PV λ/6,
(λ=633 nm)

SHE map
(Surface Height Error map)

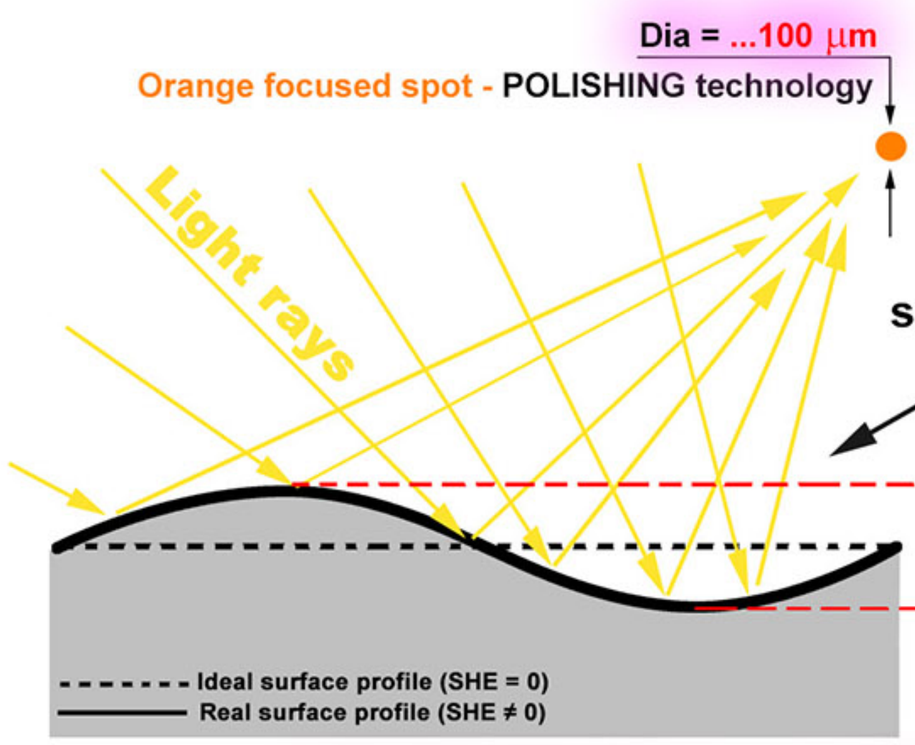




SHE map
(Surface Height Error map)



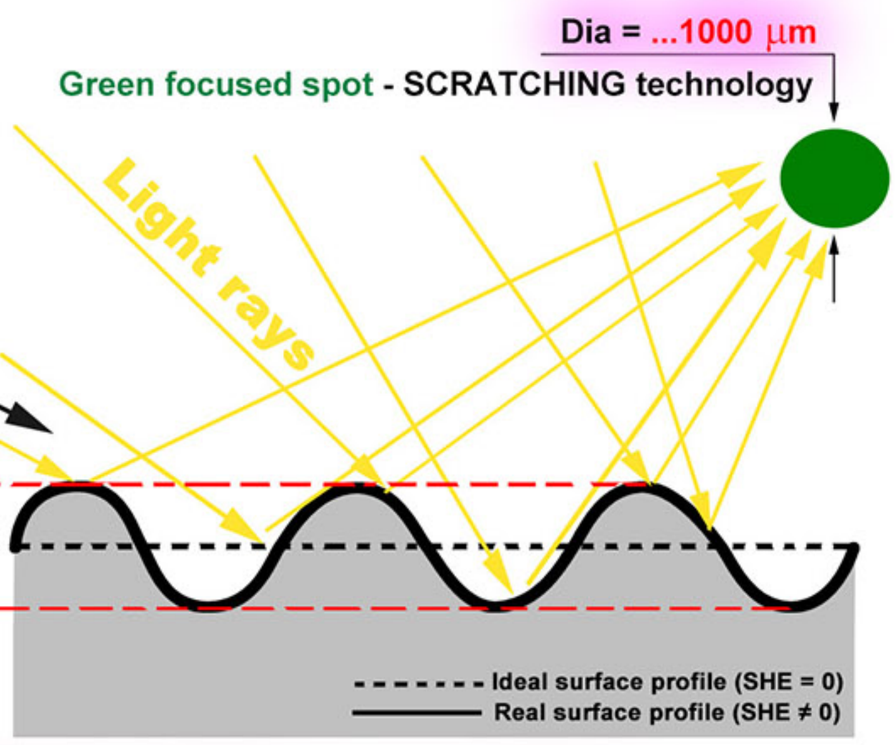
Surface profile A-A’
(typical schematic example)



Almost the same surface figure tolerance manufacture

PV λ/6

Surface profile B-B’
(typical schematic example)



λ/... in mirrors specifications may be almost the same, but
polishing technology gives the result an order of magnitude better.

Thus, for providing the same result of real user work
the scratching technology must have an order of magnitude greater accuracy
in the specification of the purchased mirror than have in a specifications standard mirrors manufactured using polishing technology (all other things being equal).