

HEAT TRANSFER & FLUID ENHANCEMENT NOTES

SIO MIXER AND SNIPER NOZZLE



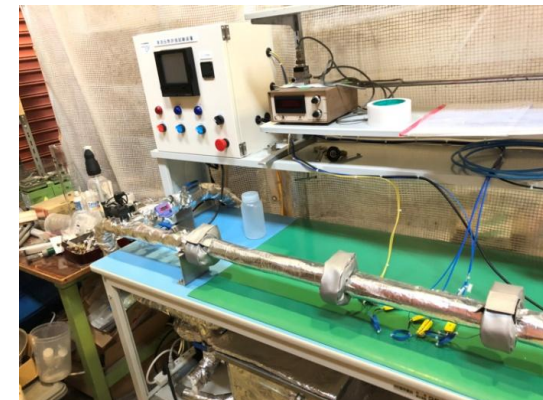
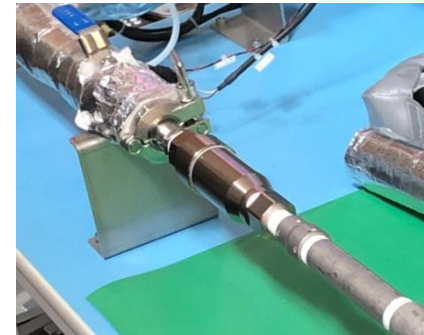
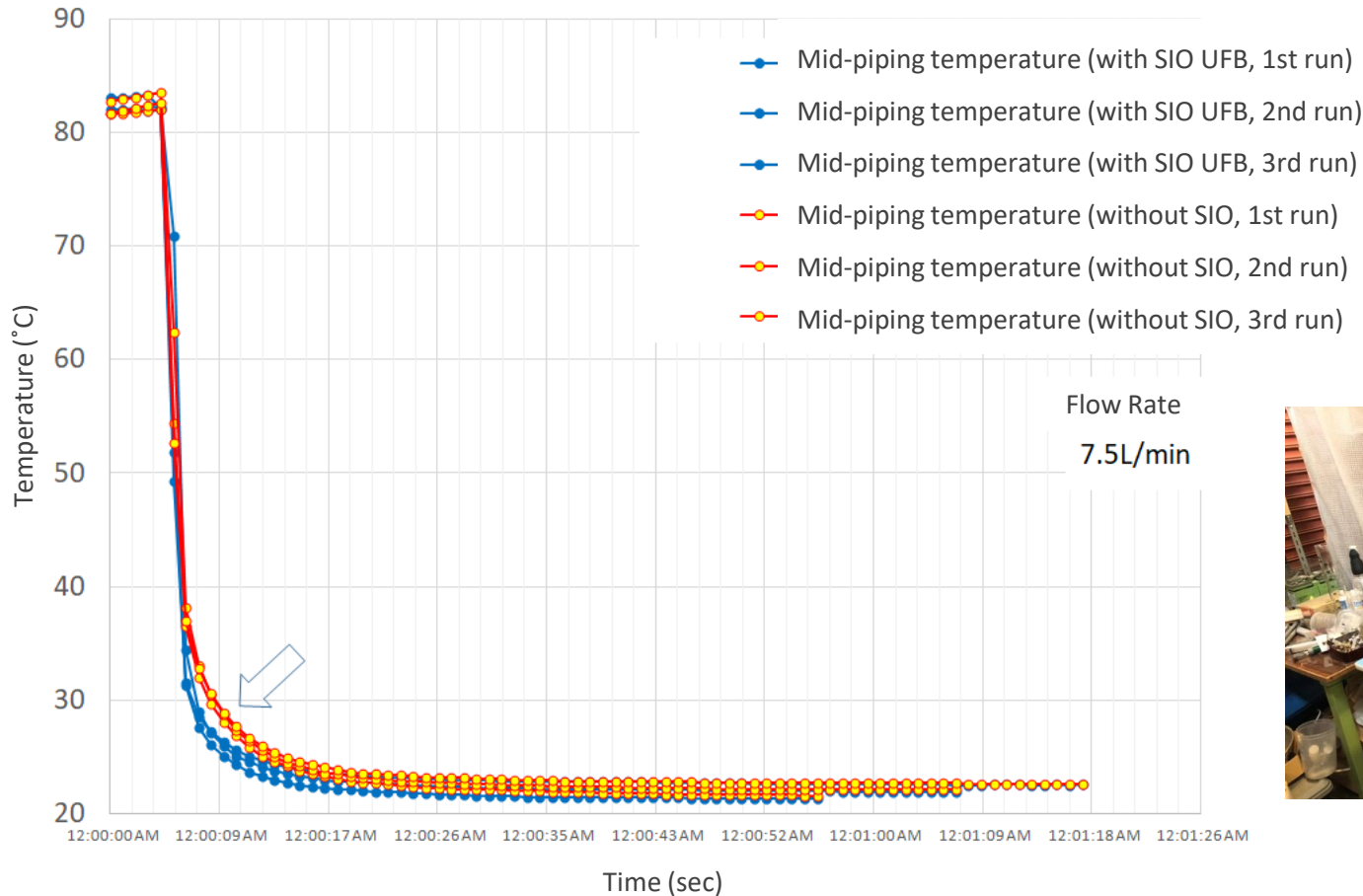
SIO CO., LTD.



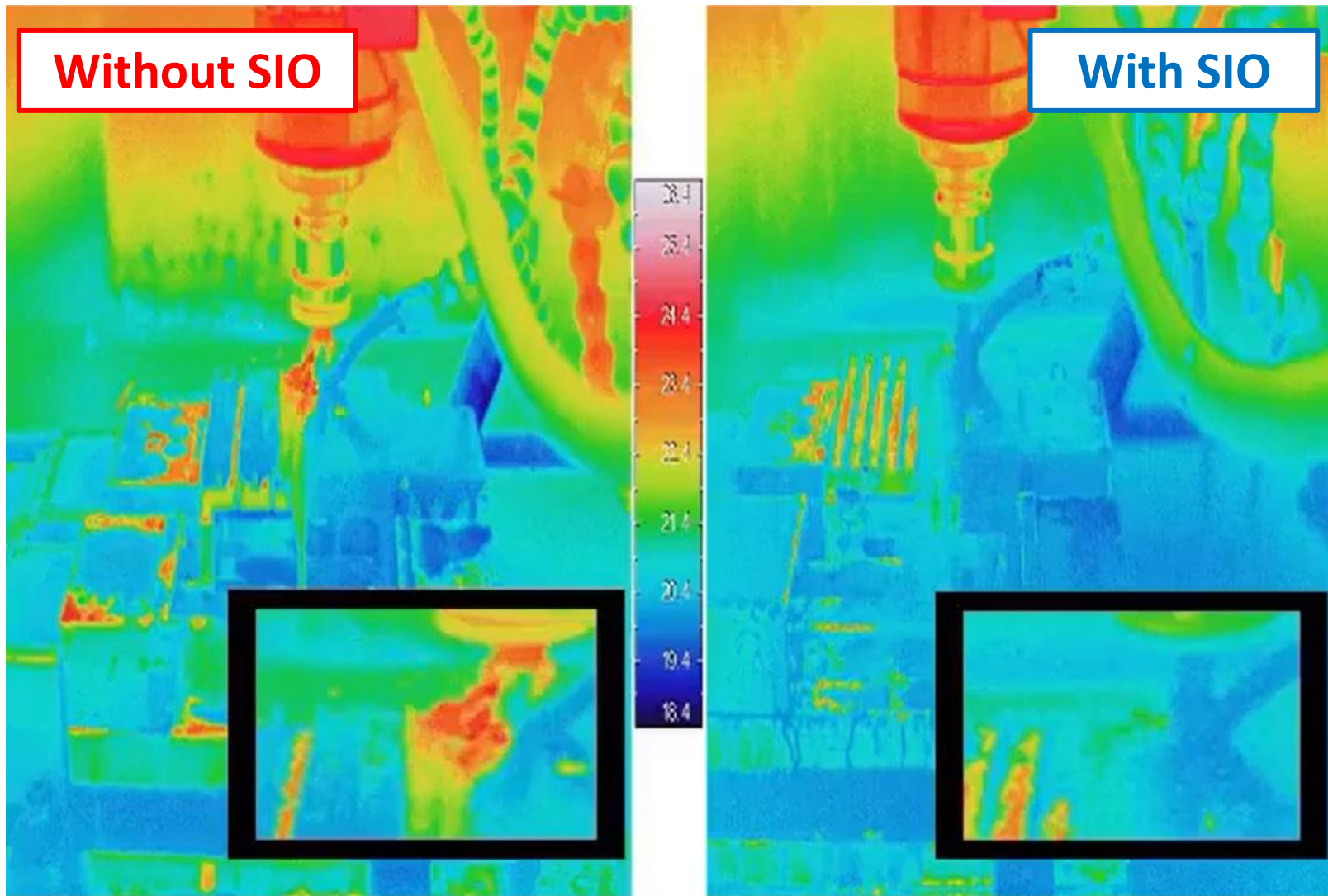
SIO Heat Transfer Lab Test Data - Cooling System

SIO Heat Transfer Test by Tokyo Metropolitan University

- Temperature reduced approx. 20% faster (enhanced heat transfer) when using SIO UFB in cooling system
- Blue lines show with SIO mixer UFB, measured three times
- Red lines show without SIO mixer, measured three times

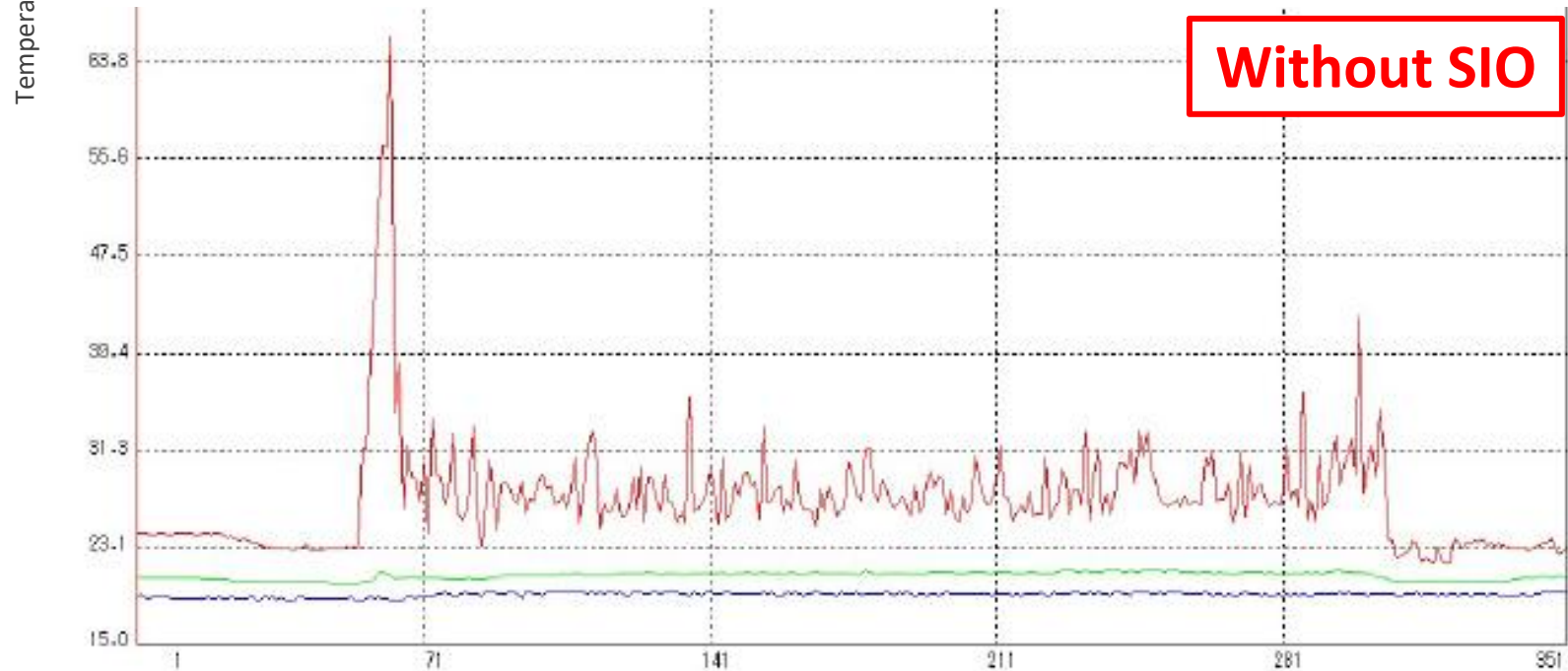


SIO Heat Transfer Practical: Drilling Process - Thermal Camera



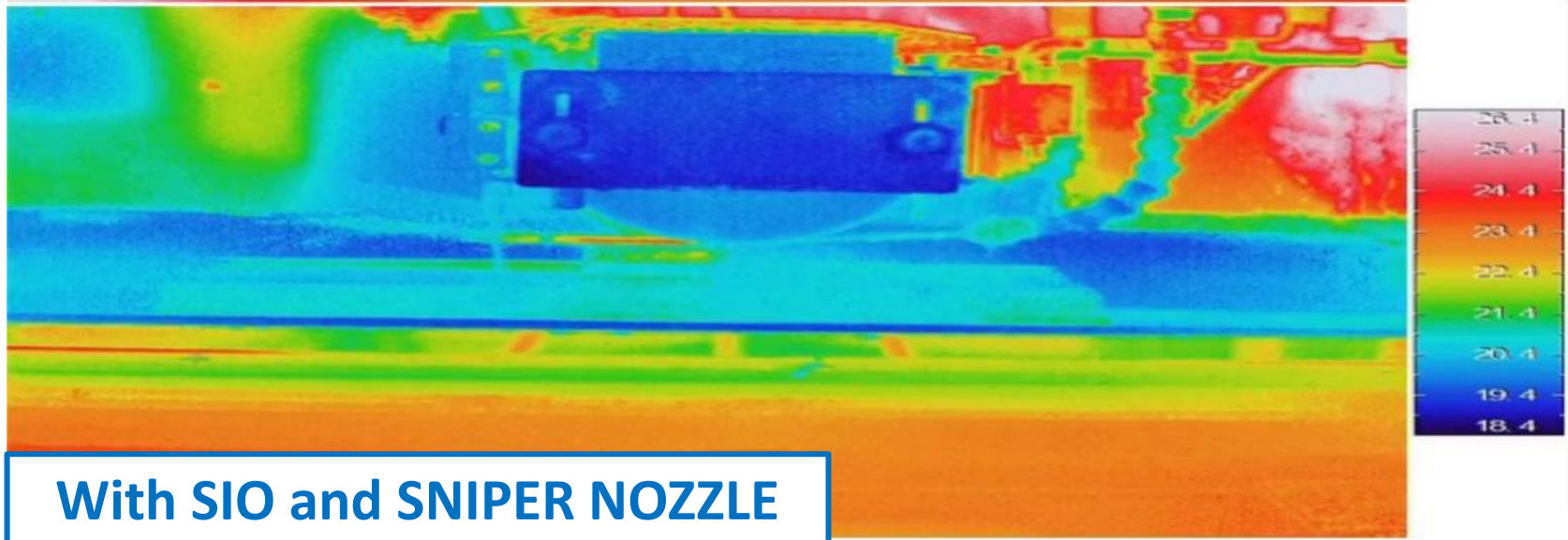
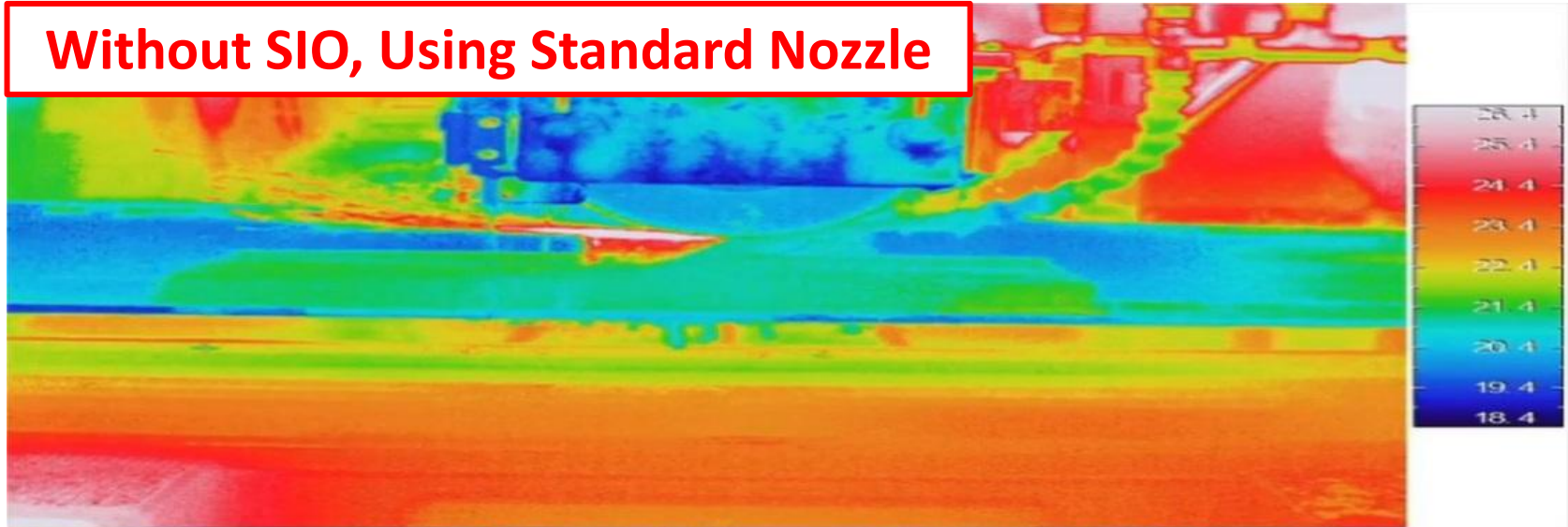
- Improved cooling performance of metalworking fluid after passing through SIO

SIO Heat Transfer Practical: Drilling Process - Thermal Graph



- Reduction in heat and greater consistency using SIO

Without SIO, Using Standard Nozzle



With SIO and SNIPER NOZZLE

- Improved cooling performance and targeted delivery with SIO + SNIPER NOZZLE

SIO Heat Transfer Practical: Grinding Process - Thermal Graph

