ROXON HX270

BELT MONITORING FOR CRITICAL CONVEYORS

- AVOID PRODUCTION LOSS
- OPTIMIZE BELT LIFETIME
- IMPROVE SAFETY

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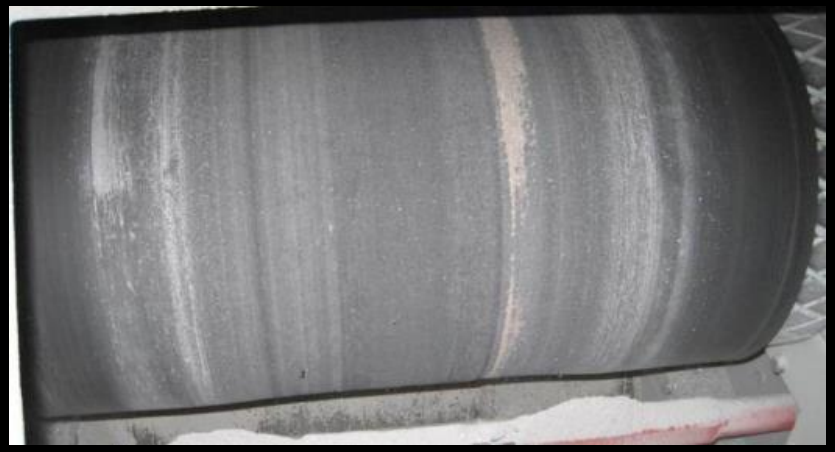
NEPEAN Conveyors

ROXON HX270
WEAR MONITORING

- **Integrated seamlessly to HX270 belt monitoring system**
  - Built-in feature for HX270-1 belt top cover monitoring device.
  - Use it from HX270 User Interface together with all other benefits.
- **Continuous accurate belt thickness measurement**
  - Belt cross-section profile measurement with millimeter accuracy.
  - Replaces the need for any other thickness measurement methods.
- **Suitable for all flat conveyor belts**
  - Textile and steel cord belts with any thickness and grade.
- **On-line automatic 24/7 monitoring**
  - Automatic belt abnormal wear alarms.
  - Automatic belt section drive to belt splicing station.
- **Optimal tool for belt life time optimization**
  - Belt life time estimation for each belt section along the belt.
  - Belt life time comparison of different belt manufacturers.
  - Import your tonnage and material data for extensive wear analysis.



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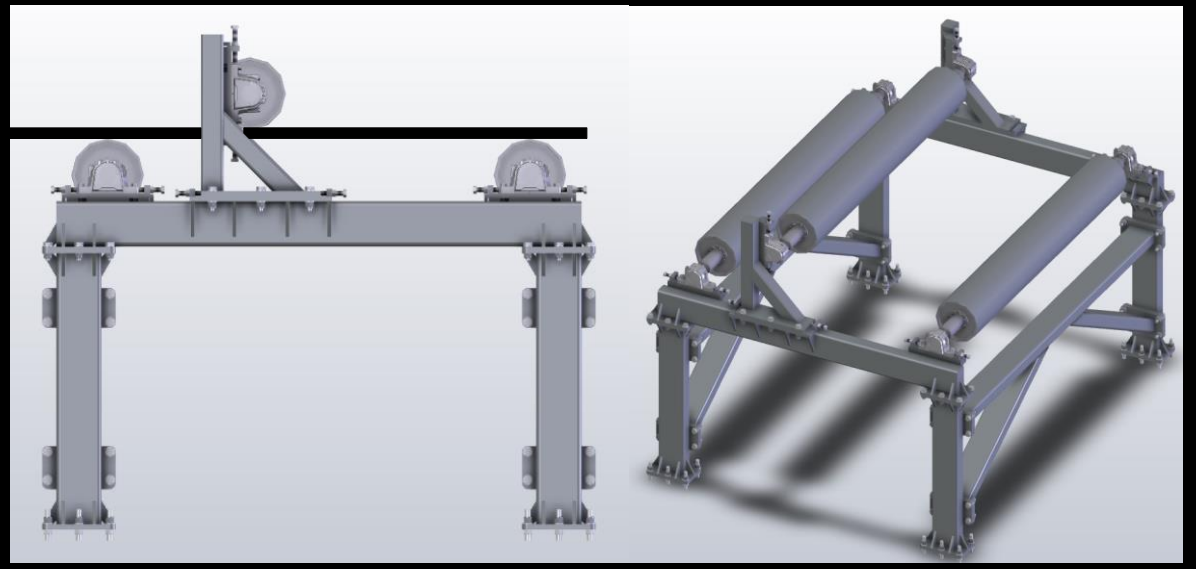
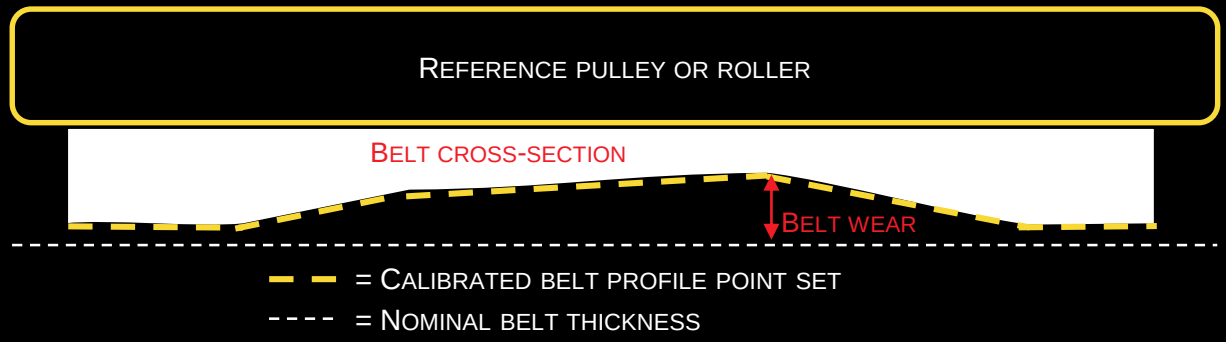
WEAR MONITORING SETUP

- The belt is straightened with a pulley or roller set-up for HX270-1 top cover monitoring device.
- The set-up is designed based on the belt forces and the conveyor characteristics.
- The belt cross-section thickness profile is measured against the reference pulley or roller.
- The belt profile and wear data is continuously submitted to HX270 system data base.





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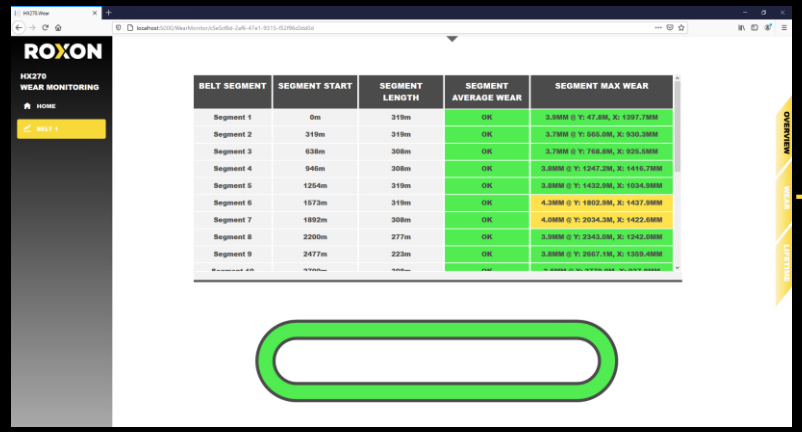
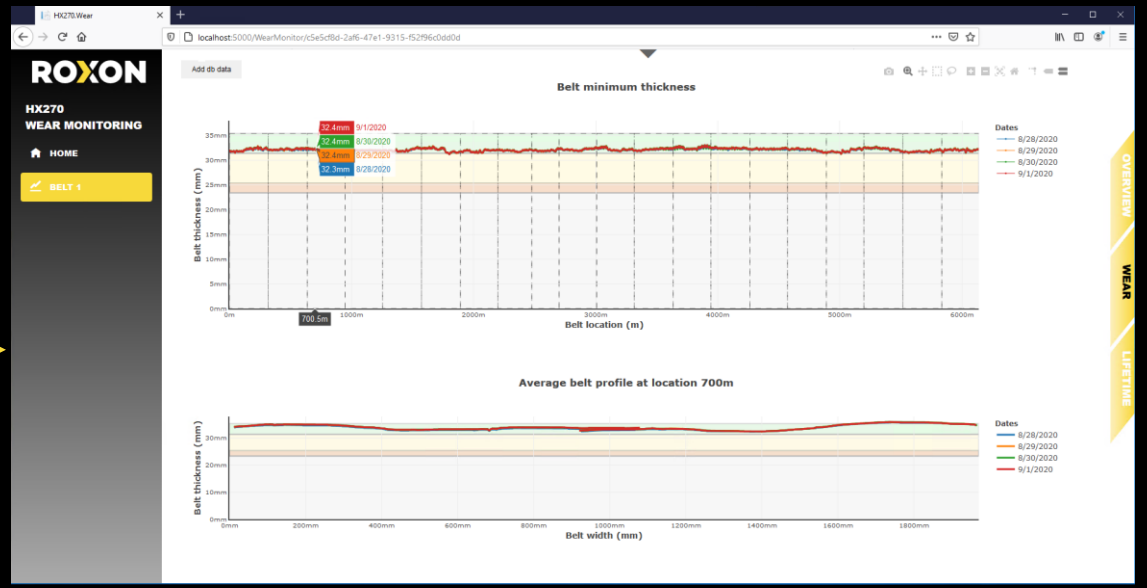
WEAR MONITORING SYSTEM OVERVIEW

WEAR OVERVIEW OF EACH BELT SECTION

HX270 USER INTERFACE





BELT MINIMUM THICKNESS AND CROSS-SECTION FROM ANY LOCATION

CONVEYOR BELT SECTIONS WITH DIFFERENT WEAR RATES

WEAR MEASUREMENT DATA

HX270-1 TOP COVER MONITORING DEVICE

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WEAR MONITORING CASE STUDY

- Heavy duty mining conveyor installation
  - ST6000, B=2000mm, v=5 m/s, 8000 t/h, over 6 km long belt

- The precision of the Wear measurement data was studied
  - Sequential belt loops day after day should have the same precise wear measurement results, because the belt does not wear in couple of days.
  - The precision of the belt thickness measurement is ±0.25 mm with ~300 belt loops and 180 000 belt 3D cross section profiles measured within 4 days example period.

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WEAR MONITORING CASE STUDY: EXTREME PRECISION

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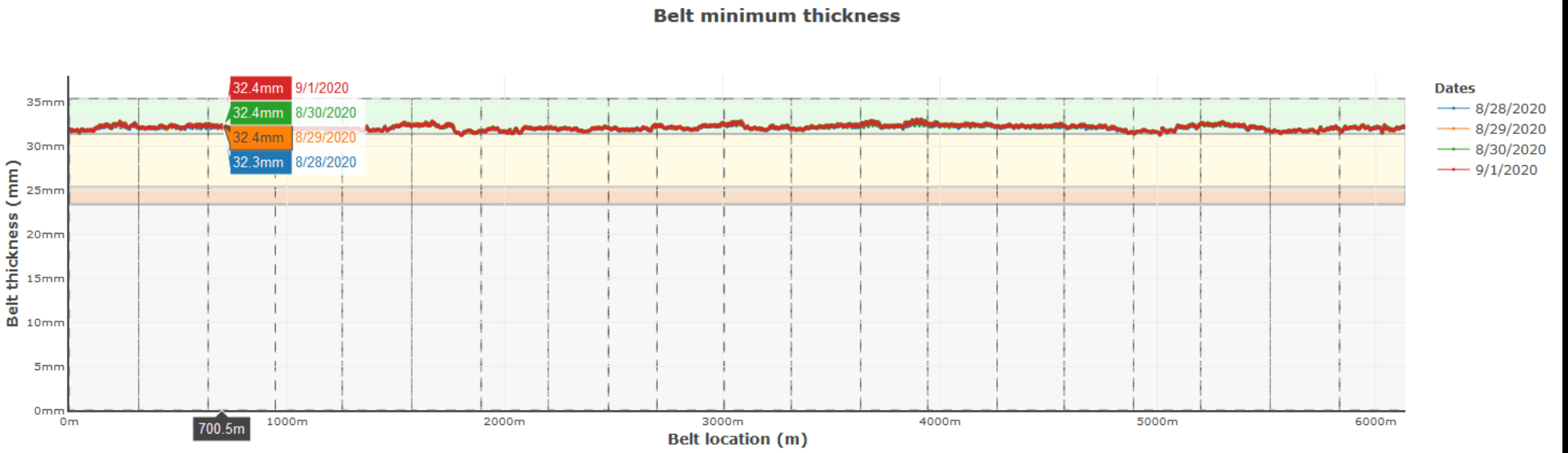
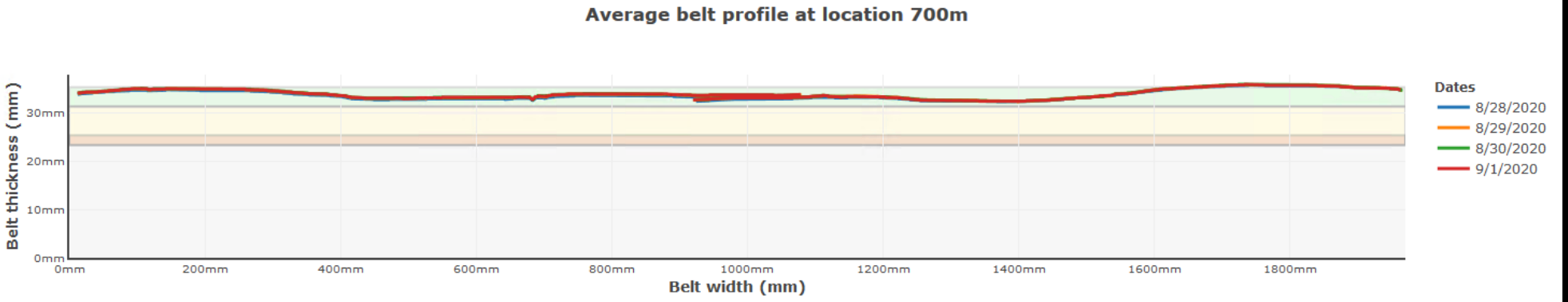
HX270
WEAR MONITORING

HOME

BELT 1





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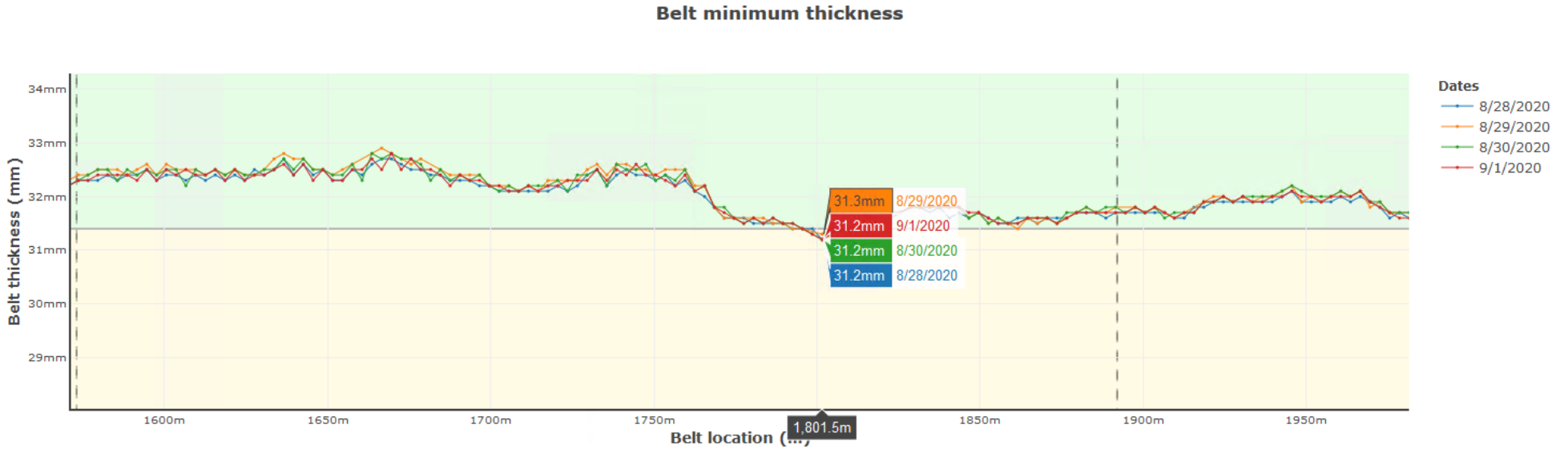

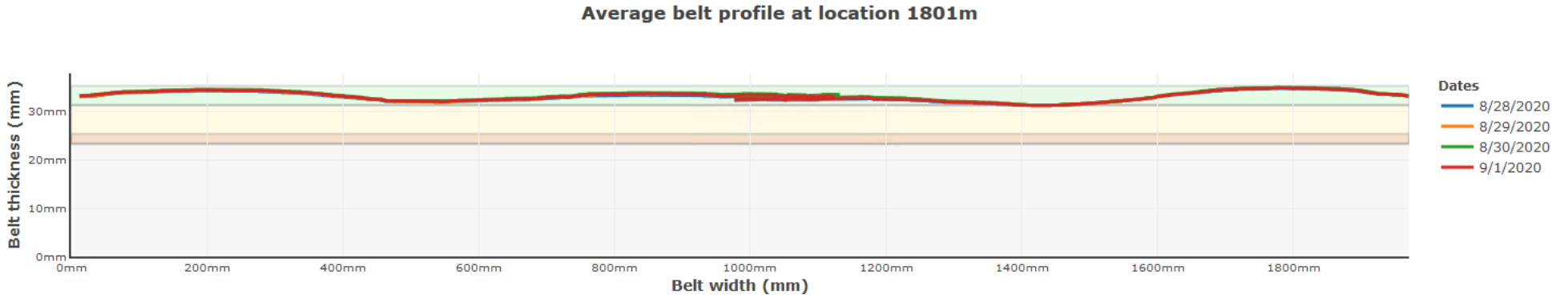

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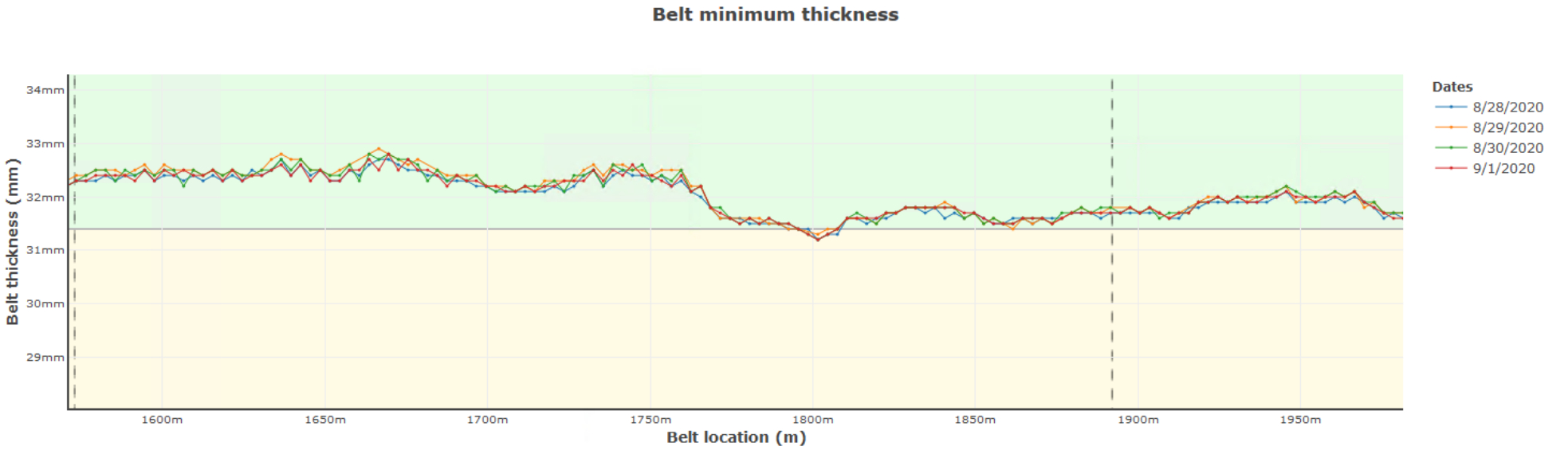

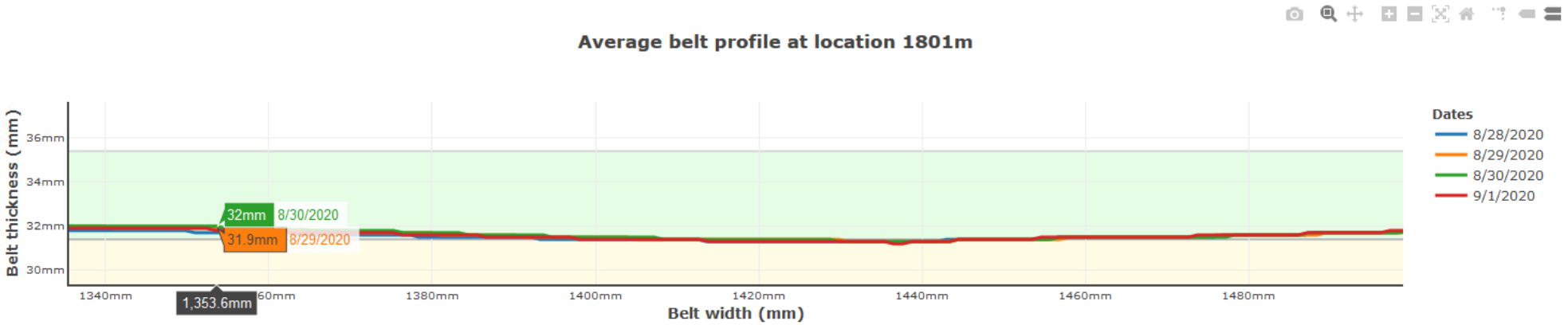

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www.roxon.com/components/belt-condition-monitoring