

Vent Valve Update in Agilent Fragment Analyzer Instruments

As part of ongoing product development, the vent valve used in the Agilent Fragment Analyzer systems has been updated. This change was necessary to support the development of a new gel formulation. The updated valve ensures compatibility with both current and future chemistries while maintaining instrument performance specifications.

To validate the impact of this change, comparative data has been generated across each of the current gel formulas using instruments equipped with both the original and updated vent valves. The updated valve has been thoroughly evaluated to confirm that analytical performance, data quality, and reproducibility are maintained. Representative examples of the ladders from different analysis kits are shown here, confirming that the performance of the existing Fragment Analyzer kit portfolio remains consistent and equivalent across both configurations.

Kits tested

Qualitative DNA kits

- Agilent dsDNA 905 Reagent kit (1-500 bp) (p/n DNF-905)
- Agilent dsDNA 920 Reagent kit (75-15000 bp) (p/n DNF-920)
- Agilent dsDNA 930 Reagent kit (75-20000 bp) (p/n DNF-930)
- Agilent Plasmid DNA kit (p/n DNF-940)

Quantitative DNA kits

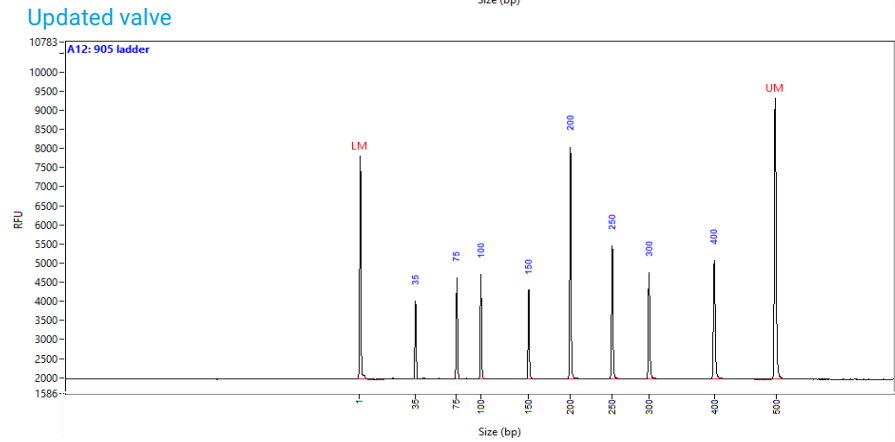
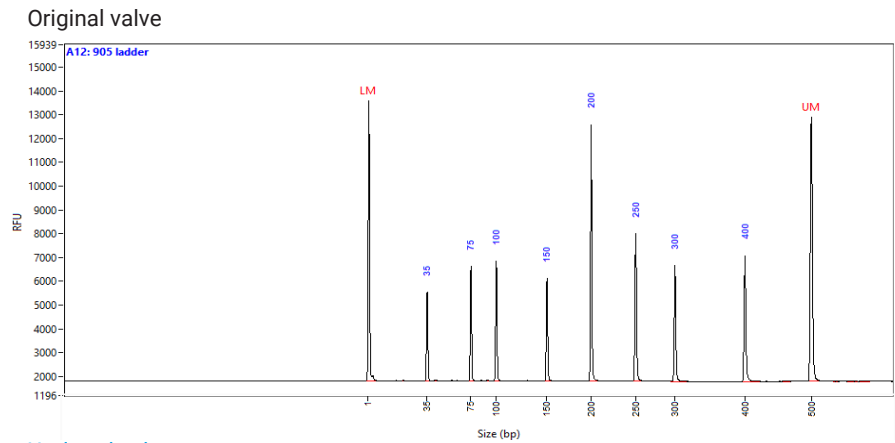
- Agilent HS Large Fragment 50 kb kit (p/n DNF-464)
- Agilent genomic DNA 50 kb kit (p/n DNF-467)
- Agilent HS genomic DNA 50 kb kit (p/n DNF-468)
- Agilent HS NGS Fragment kit (1-6000 bp) (p/n DNF-474)
- Agilent HS Small Fragment kit (p/n DNF-477)

RNA kits

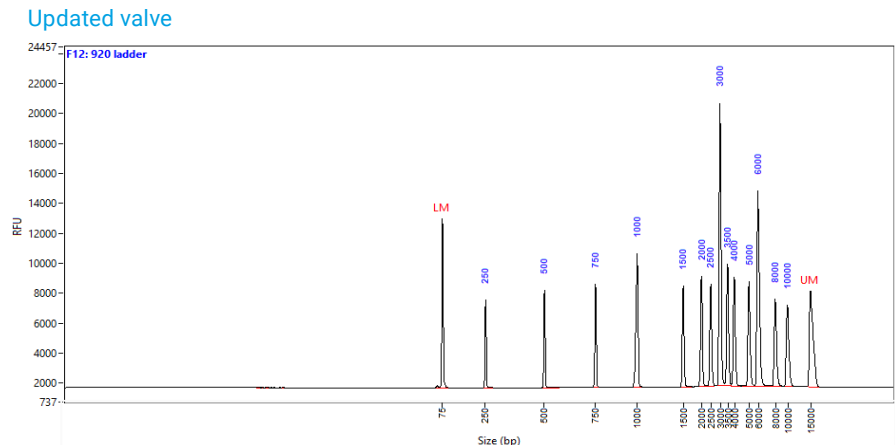
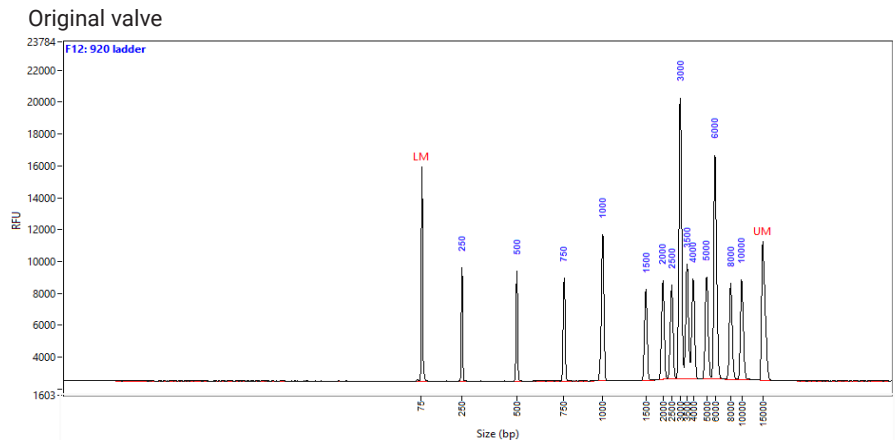
- Agilent Small RNA kit (p/n DNF-470)
- Agilent RNA kit (15 nt) (p/n DNF-471)
- Agilent HS RNA kit (15 nt) (p/n DNF-472)

Qualitative DNA kits

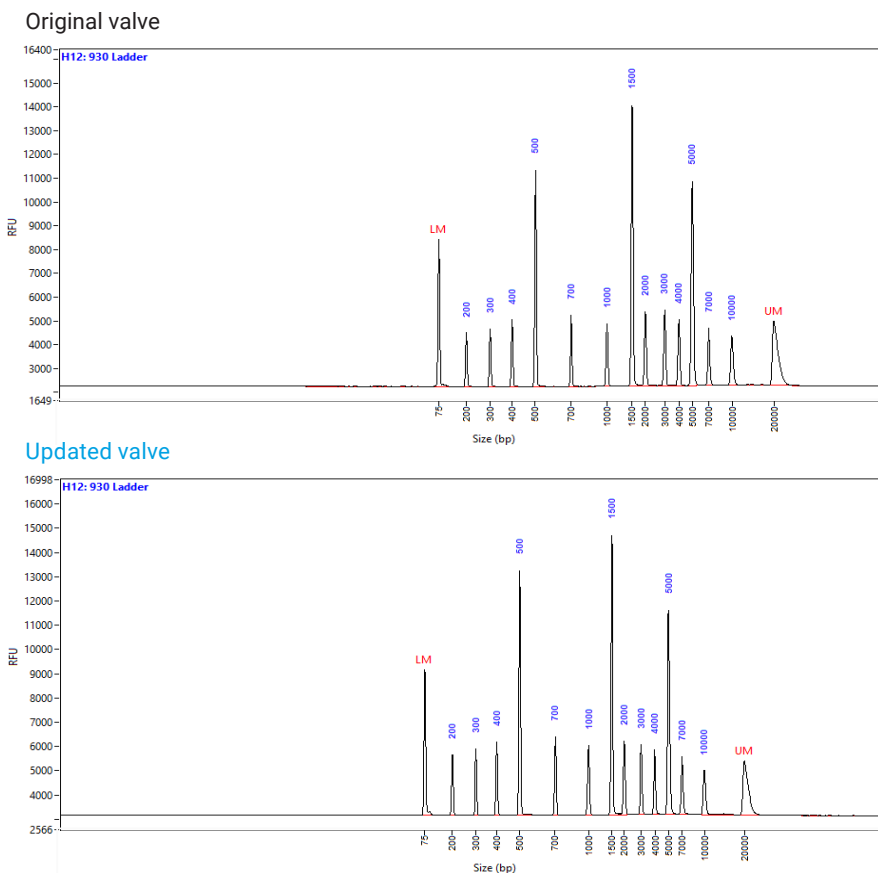
A) Agilent dsDNA 905 Reagent kit
(1-500 bp) (p/n DNF-905)



B) Agilent dsDNA 920 Reagent kit
(75-15000 bp) (p/n DNF-920)



C) Agilent dsDNA 930 Reagent kit
(75-20000 bp) (p/n DNF-930)



D) Agilent Plasmid DNA kit
(p/n DNF-940)

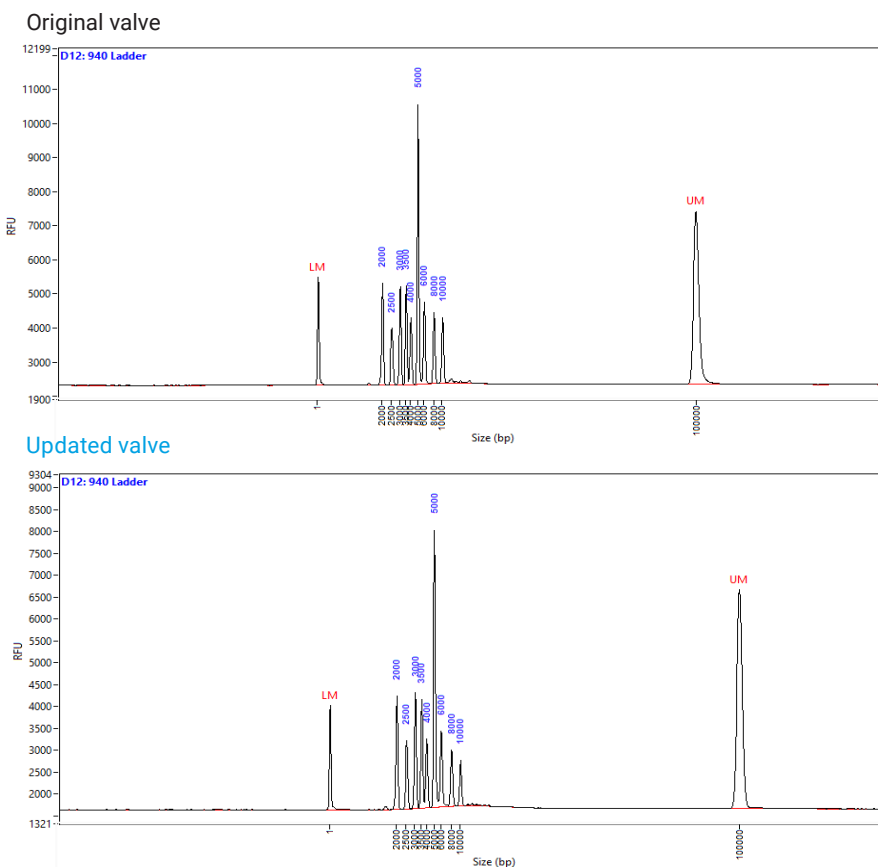
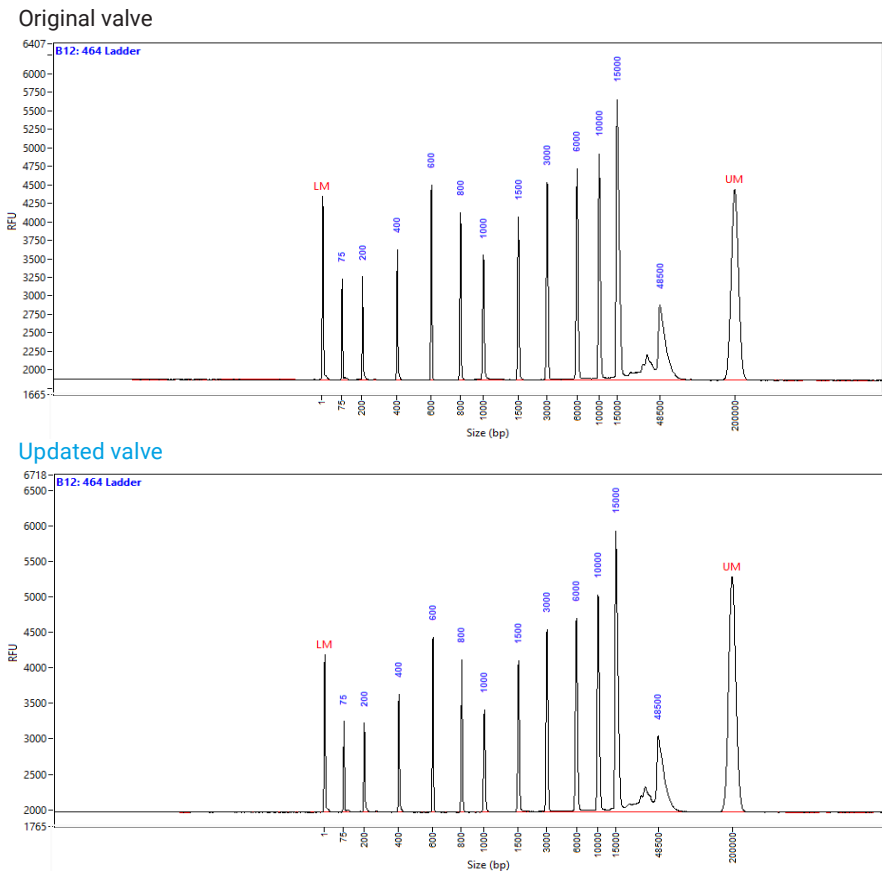


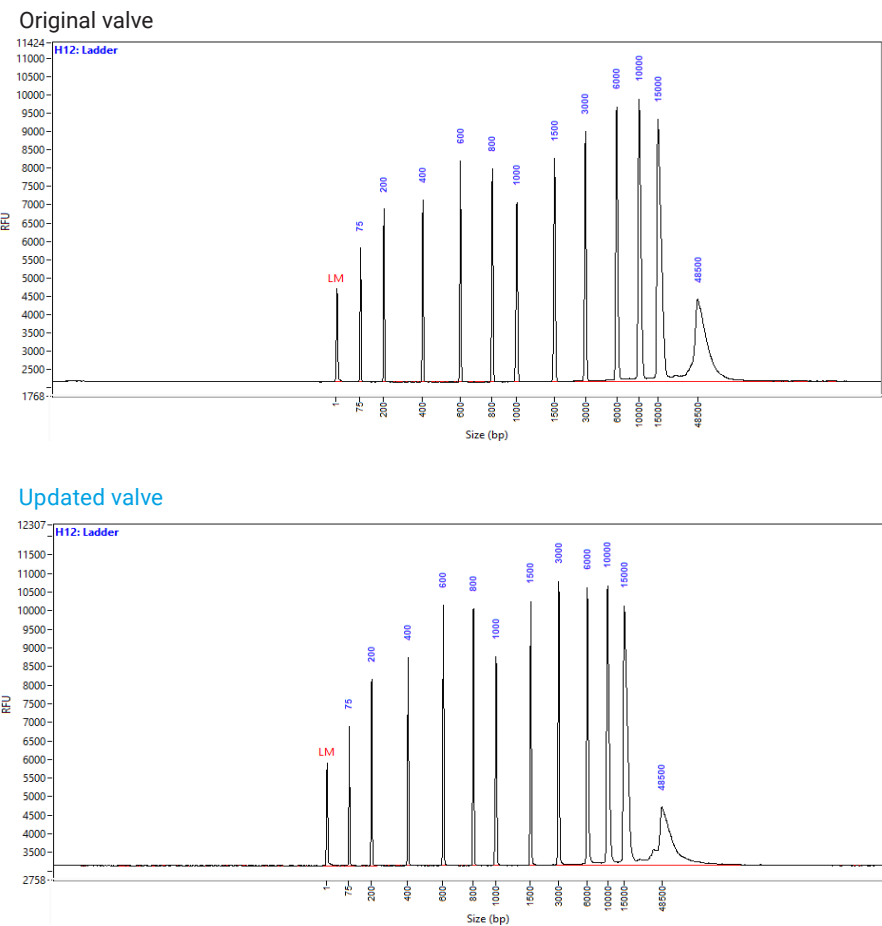
Figure 1. Representative ladder profiles of qualitative analysis kits for the Agilent Fragment Analyzer system using the original (top) and updated (bottom) vent valve. A) Agilent dsDNA 905 Reagent kit (1-500 bp) kit (p/n DNF-905); B) Agilent dsDNA 920 Reagent kit (75-15000 bp) (p/n DNF-920); C) Agilent dsDNA 930 Reagent kit (75-20000 bp) (p/n DNF-930); D) Agilent Plasmid DNA kit (p/n DNF-940).

Quantitative DNA kits

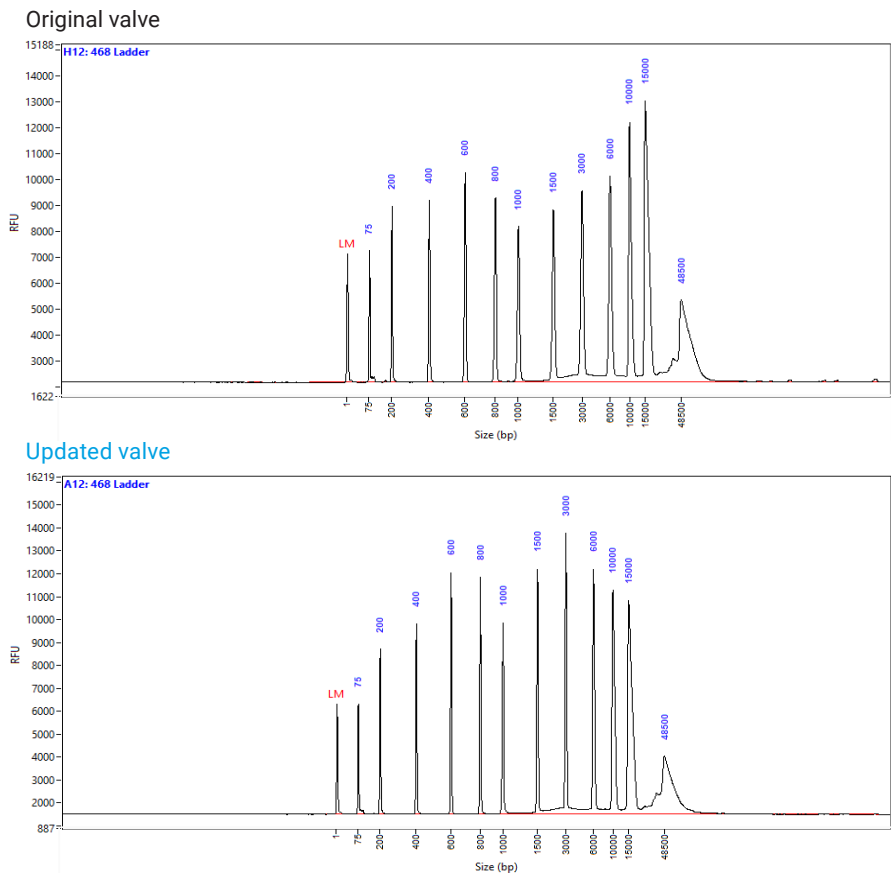
A) Agilent HS Large Fragment 50 kb kit
(p/n DNF-464)



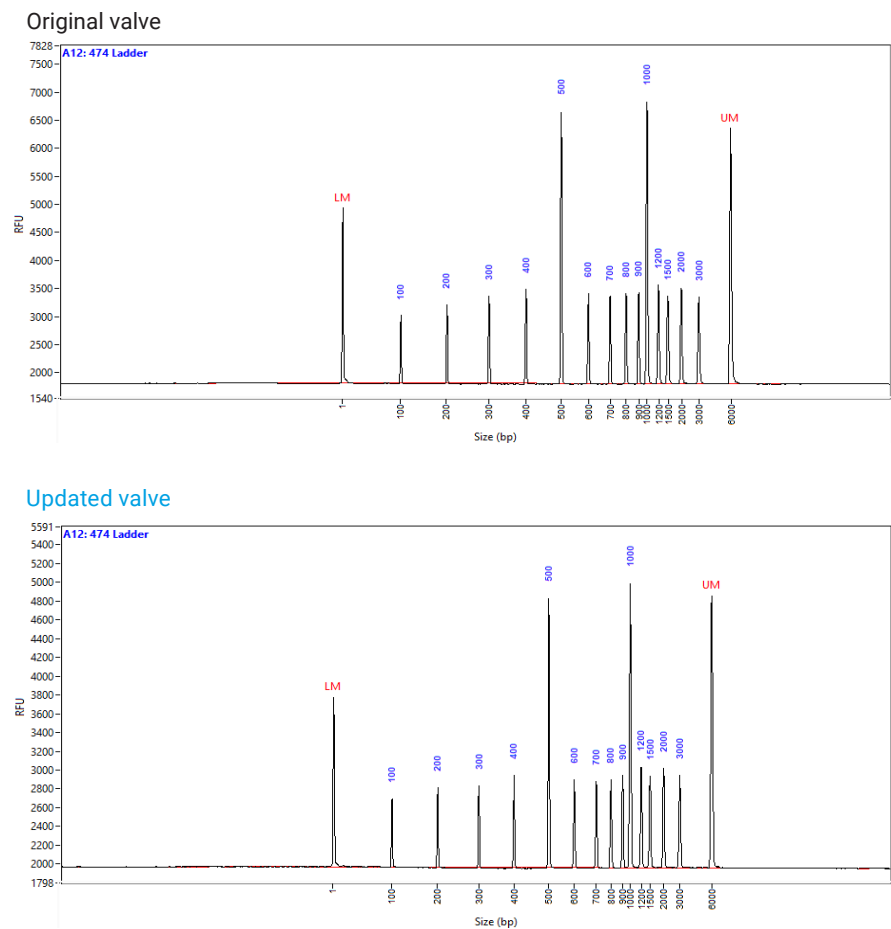
B) Agilent genomic DNA 50 kb kit
(p/n DNF-467)



C) Agilent HS genomic DNA 50 kb kit
(p/n DNF-468)



D) Agilent HS NGS Fragment kit
(1-6000 bp) (p/n DNF-474)



E) Agilent HS Small Fragment kit
(p/n DNF-477)

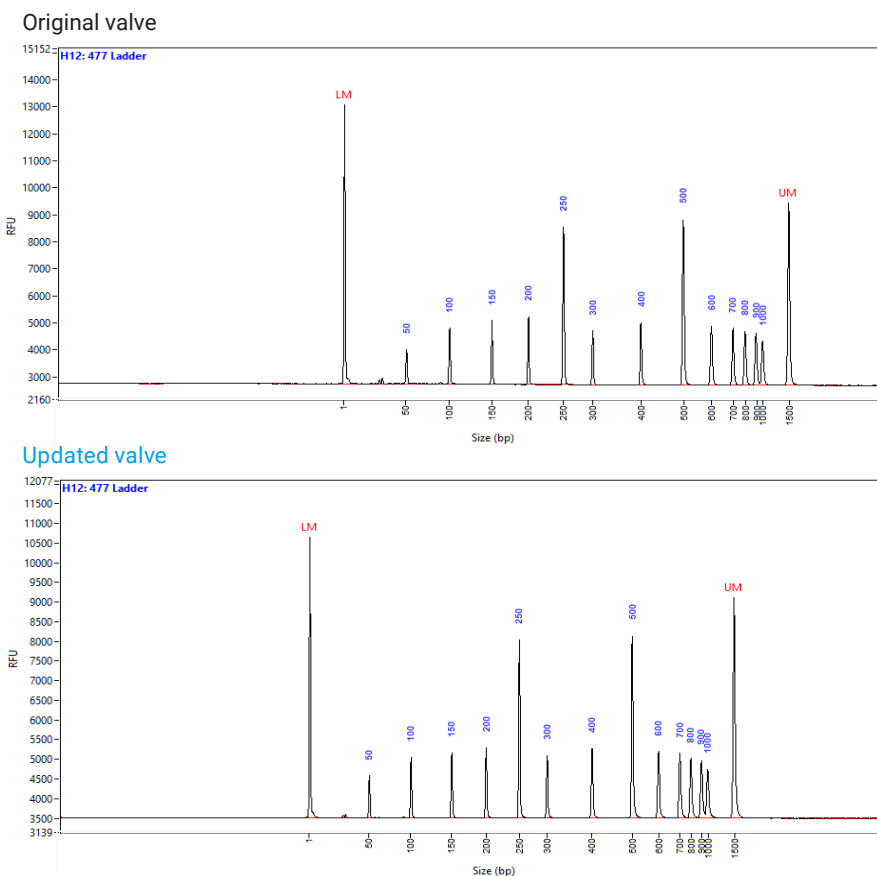
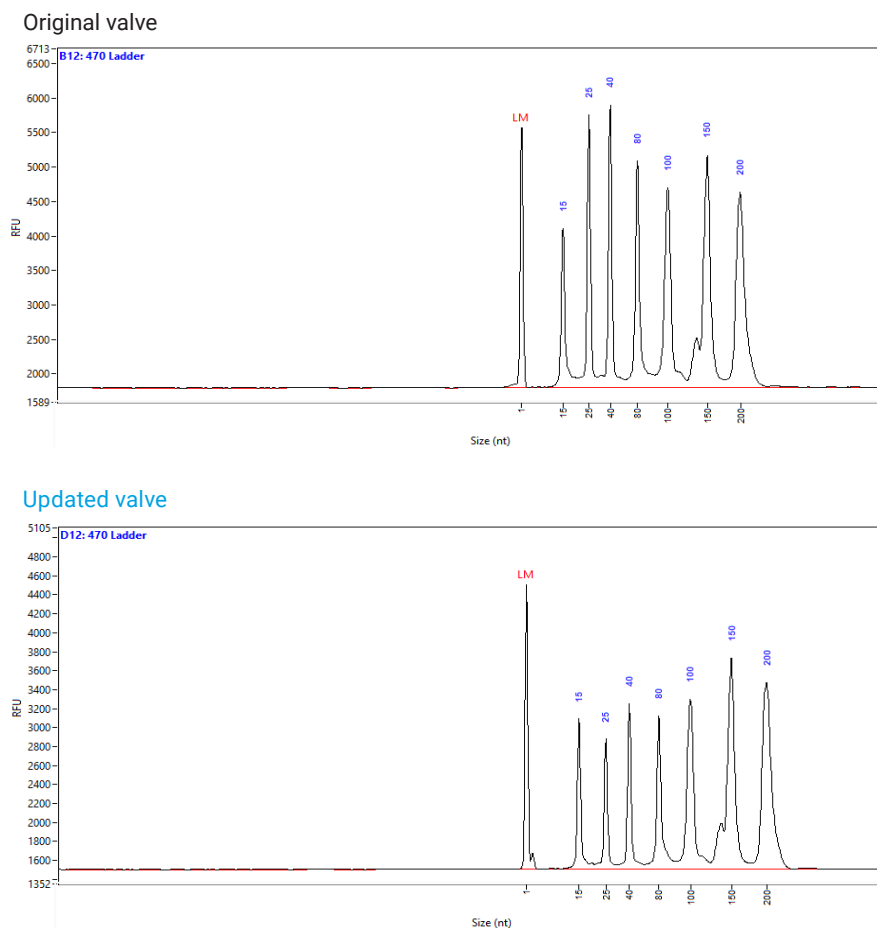


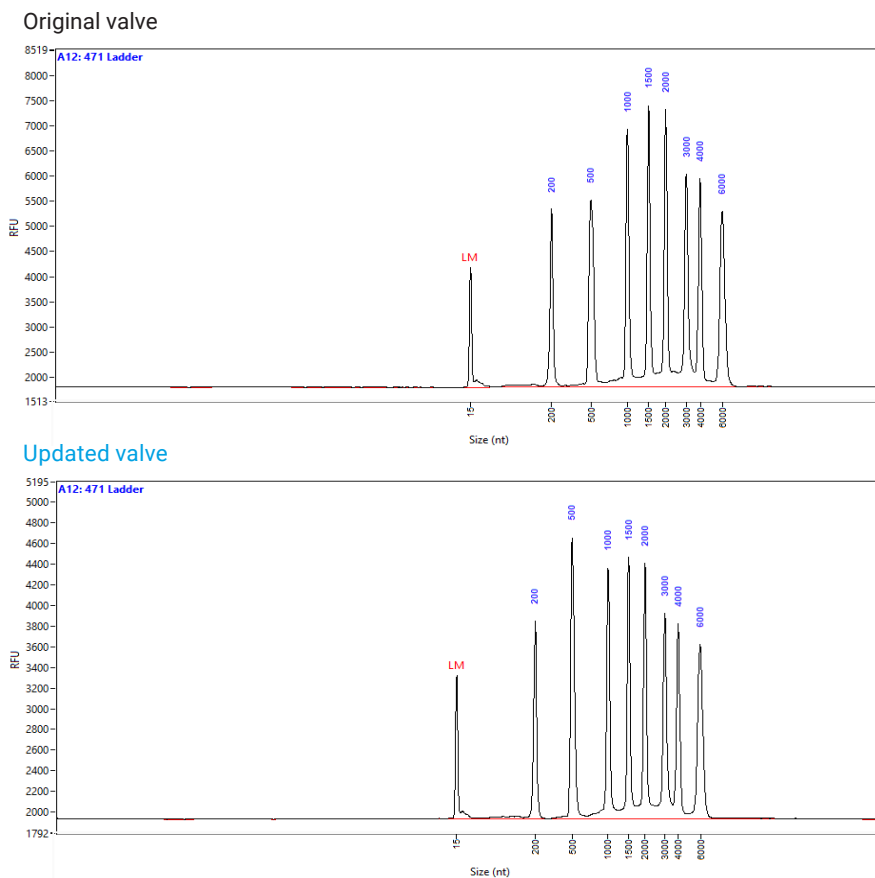
Figure 2. Representative ladder profiles of quantitative analysis kits for the Agilent Fragment Analyzer system using the original (top) and updated (bottom) vent valve. A) Agilent HS Large Fragment 50 kb kit (p/n DNF-464); B) Agilent genomic DNA 50 kb kit (p/n DNF-467); C) Agilent HS genomic DNA 50 kb kit (p/n DNF-468); D) Agilent HS NGS Fragment kit (1-6000 bp) (p/n DNF-474); E) Agilent HS Small Fragment kit (p/n DNF-477).

RNA kits

A) Agilent Small RNA kit (p/n DNF-470)



B) Agilent RNA kit (15 nt)
(p/n DNF-471)



C) Agilent HS RNA kit (15 nt)
(p/n DNF-472)

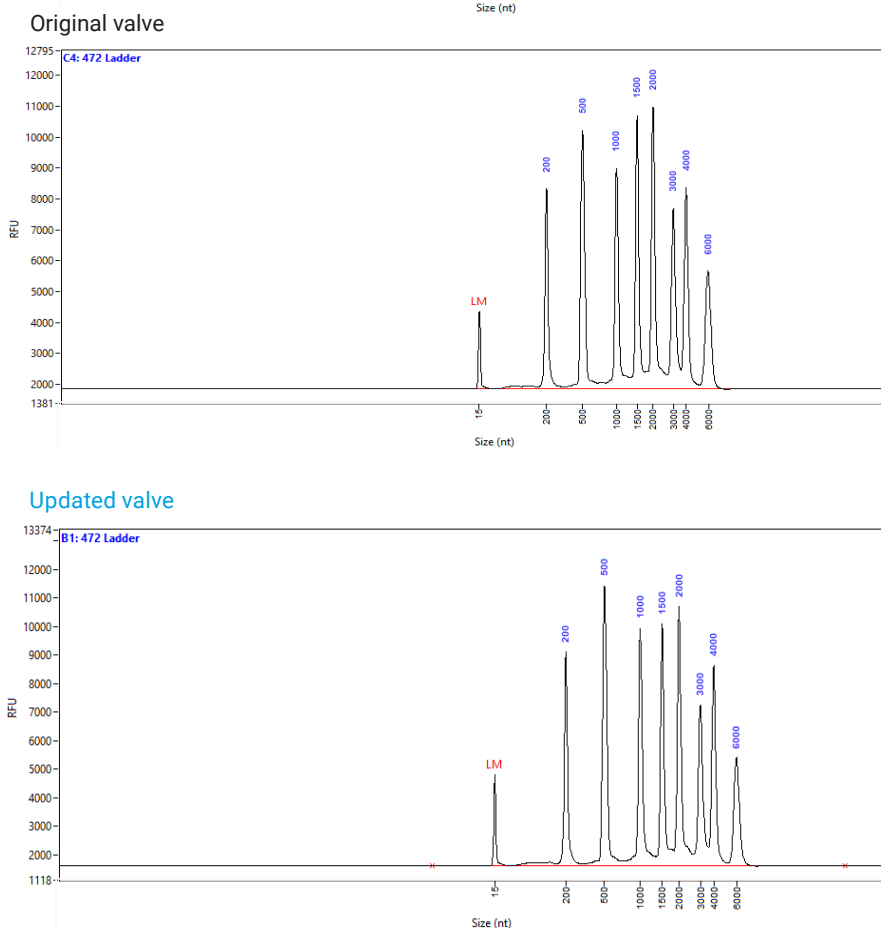


Figure 3. Representative ladder profiles of the RNA analysis kits for the Agilent Fragment Analyzer system using the original (top) and updated (bottom) vent valve. A) Agilent Small RNA kit (p/n DNF-470); B) Agilent RNA kit (15 nt) (p/n DNF-471); C) Agilent HS RNA kit (15 nt) (p/n DNF-472)

Conclusion

A new vent valve will be used in the Agilent Fragment Analyzer systems to ensure compatibility with a newly developed gel formulation. Comparative performance data confirm that this change does not impact the quality, consistency, or reliability of results generated using the existing kit portfolio. The updated configuration has been fully validated to meet established performance specifications.

www.agilent.com/genomics/fragment-analyzer

PR7004-796

For Research Use Only. Not for use in diagnostic procedures.

This information is subject to change without notice.

© Agilent Technologies, Inc. 2025
Published in the USA, January 14, 2026
5994-8790EN