

Market evolution: Miscellaneous machinery (CN 8479) — 2015–2025

Introduction

The customs heading 8479 covers a residual basket of machines and mechanical appliances having individual functions, as well as their parts, that are not specified elsewhere in Chapter 84. From industrial robots to public works machinery and from rope-making machines to evaporative air coolers, the grouping offers a window into the EU's broad-based mechanical engineering strengths and its external dependencies. Between 2015 and 2025, EU external trade in these products was shaped by three striking dynamics: a powerful upgrade in export unit values alongside falling export volumes, a doubling of import volumes with virtually unchanged import prices, and a structural break in reported EU production after 2021 that fundamentally alters the picture of the bloc's self-sufficiency.

A tale of two trade channels: export value-upgrade, import volume-boom

Export growth is entirely price-driven while shipped quantities contract

The value of EU exports of code 8479 rose from €15.7 bn in 2015 to €21.4 bn in 2025, an increase of 36 % (see the trade overview). Over the same period, however, exported quantity declined from 762 000 units to roughly 671 000 units (–12 %). The entire nominal expansion is therefore explained by the average unit price, which climbed from €20 600 to €31 800 (+54.5 %). The increase in unit values reflects a mix of product-mix improvements, more sophisticated machinery being shipped, and possibly general price inflation in capital goods.

Imports double in volume while prices stay flat

Imports followed a radically different pattern. Import value jumped from €4.6 bn to €9.2 bn (+100.9 %), but import quantity almost doubled as well, from 252 000 to 499 000 units (+97.8 %). The average import unit price barely moved, from €18 163 to €18 447 (+1.6 %). This suggests that the EU has been absorbing ever-larger volumes of competitively priced machinery from abroad, without the same quality or price upgrading observed on the export side.

The trade surplus edges up but net-import reliance tells a more nuanced story

Because exports still outweigh imports by a wide margin, the trade balance improved modestly from €11.1 bn to €12.2 bn (+9.3 %). However, the net-import reliance ratio – which measures the position of imports relative to apparent domestic consumption – moved from –67 % in 2015 to –55 % in 2024 (the last available year), meaning the EU's traditional export surplus is shrinking relative to the size of its domestic market (net-import reliance). This shift becomes even more striking after the production data break of 2022, discussed later.

Geopolitical realignments and rising partner concentration

The United States cements its role as the dominant export destination

EU exports to the United States more than doubled, from €2.6 bn in 2015 to €5.2 bn in 2025 (+101.2 %), making it by far the largest customer, ahead of the United Kingdom (€2.0 bn, +85.1 %) and China (€2.5 bn, only +7.9 %) (see top partners). Sales to India also doubled to €0.8 bn (+101.5 %). In contrast, exports to Russia collapsed from €1.0 bn in 2015 to just €17 mn in 2025 (–98.4 %), a supply shock caused by sanctions that was detected as the most extreme event in the series (supply shocks).

China's import surge reshapes the EU's sourcing map

On the import side, China's rise is the dominant feature. EU imports from China soared from €0.6 bn to €3.2 bn (+399.6 %), capturing a share that makes it the undisputed top supplier. Other dynamic origins include Korea (+270.9 %, but highly volatile with a coefficient of variation of 0.50), Türkiye (+260.5 %), and the United Kingdom (+67.3 %). Switzerland, the United States and Japan remain important but saw much slower growth. The Herfindahl-Hirschman Index for imports rose from 1 437 to 1 769 (+23.1 %), indicating a more concentrated sourcing structure (concentration). The export concentration also increased, with the HHI moving from 692 to 937 (+35.4 %), largely driven by the growing weight of the US.

Shocks and volatility highlight key vulnerabilities

Beyond the Russia export disruption, several other shocks were identified. A sharp price shock struck imports from the United Kingdom in 2023: unit prices jumped 96.2 % while volumes halved, suggesting a structural shift or one-off transaction (abnormality of 97.7). Mexico and Viet Nam recorded price-driven export shocks in 2020 and 2021 respectively.

The most volatile trade flows in volume terms were Brazil (coefficient of variation of 2.84 on imports) and Egypt (0.92 on exports), though their weight remains low (volatility).

Main EU export markets (2025)	Value (€ mn)	Change 2015–2025
United States	5 163	+101.2 %
China	2 500	+7.9 %
United Kingdom	2 005	+85.1 %
Switzerland	986	+47.3 %
Türkiye	884	+37.7 %
India	811	+101.5 %

Main EU import origins (2025)	Value (€ mn)	Change 2015–2025
China	3 209	+399.6 %
United States	1 295	+24.9 %
Switzerland	1 195	+25.1 %
Korea, Republic of	734	+270.9 %
United Kingdom	631	+67.3 %
Japan	567	–6.1 %

A domestic production upheaval and its implications for specialisation

Reported EU production surged after 2021, altering the trade-to-output picture

The most dramatic change in the dataset is the leap in EU production of 8479 goods. In 2015, production volume stood at 1.1 million units; by 2021 it was still only 1.1 million. Then in 2022 it jumped to 33.5 million units and remained around 33 million in 2023-2024, while production value rose from €5.3 bn (2021) to €24.9 bn (2022) (production volumes). The data reliability flags (“rounded” and “estimate” from 2022 onward) suggest a change in statistical methodology or the inclusion of new product categories. Nevertheless, this structural break is the main reason why the net-import reliance ratio moved sharply toward zero after 2021. Even with the production surge, export volumes did not experience a similar upswing, implying that much of the additional reported output is consumed domestically or classified differently in trade statistics.

Germany remains the industrial heartland, but Hungary and others show dynamism

Germany is both the top exporter (€10.5 bn in 2025, +41.5 %) and the top importer (€2.9 bn, +69.4 %) of 8479 goods. Italy and the Netherlands follow on the export side,

while France and the Netherlands are large importers. The fastest-growing importer among Member States is Hungary (+341.5 %, from €0.1 bn to €0.4 bn), reflecting its integration into global machinery supply chains. In terms of revealed comparative advantage (RSCA) in 2025, Finland (0.406), Slovakia (0.297) and Germany (0.256) are the most specialised, while Ireland, Cyprus and Greece are the least specialised, reflecting their different industrial fabrics (specialisation).

The product mix remains dominated by “machines n.e.s.” and parts

Disaggregating the heading shows that the residual sub-category “Machines and mechanical appliances, n.e.s.” (847989) accounts for the bulk of both exports (€11.2 bn in 2025) and imports (€5.5 bn). “Parts” (847990) is the second-largest segment (€4.4 bn exports, €2.2 bn imports), followed by industrial robots (847950) and mixing-kneading machinery (847982). The product structure has remained fairly stable over the decade, although the unit prices of exported robots and “n.e.s.” machines have risen particularly strongly (product segments).

Conclusion

EU trade in miscellaneous machinery over 2015-2025 tells a story of qualitative upgrading on the export side and quantitative expansion on the import side. Exports grew entirely through higher unit values, while imports doubled in volume terms with stable prices, mainly fuelled by China. Geopolitical shocks – the exit from Russia and the UK price event – have reconfigured the partner map, while concentration on both the export and import sides has increased. Meanwhile, a dramatic and still-to-be-fully-explained jump in reported domestic production from 2022 onward has reshaped the autonomy indicators. Going forward, understanding the nature of this production surge and its alignment with trade flows will be key to assessing the real level of EU self-sufficiency in this broad machinery basket.

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If you need advice on European trade policy, or representation for your interests in Brussels, feel free to contact me at support@tradedashboard.eu. You can find my CV at [this address](#).