

Trends, Challenges, and Strategic Shifts

2025年美國CNC市場: 趨勢、挑戰和策略轉變

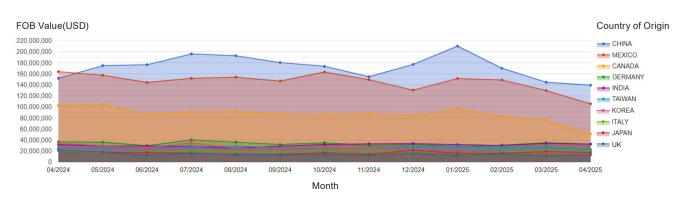
Data note: The data for this article is derived from the US Census trade statistics. US Census trade statistics analyze imports and exports on all modes of transportation. That value is calculated in USD by general FOB for imports and FOB for exports. The HS Codes used in this article are 7526 (other articles of iron or steel), 8487(machinery parts, not containing electrical connectors, insulators, coils, contacts, or other electric features), 7609 (aluminum tube or pipe fittings), and 7419 (articles of copper).

As global supply chains undergo strategic recalibration in 2025, the United States' position in the CNC machining market continues to reflect both competitive opportunity and structural dependency. This article examines the evolving landscape of U.S. trade in CNC-related components, focusing on key import and export trends through the lens of four critical HS codes: 7326 (other articles of iron or steel), 8487 (machinery parts not containing electrical features), 7609 (aluminum tube or pipe fittings), and 7419 (articles

of copper). These categories capture a broad cross-section of the materials and parts integral to precision manufacturing and automation—sectors that are both heavily globalized and acutely sensitive to policy, logistics, and reshoring efforts.

Overlaying these trends is the persistent influence of tariffs, particularly on imports from Asia and Europe, which continue to reshape sourcing strategies and cost structures across the CNC supply chain. With trade tensions between the U.S. and major manufacturing economies (such as China) remaining unresolved or periodically escalating, the pricing and availability of key inputs have become more volatile. Tariff regimes have not only raised the landed cost of critical components but also accelerated efforts by U.S. manufacturers to diversify suppliers, seek domestic alternatives, or reengineer product designs to circumvent duties. This article explores how these trade policy dynamics are reflected in the latest import/export data and what they suggest about the strategic direction of the U.S. CNC sector amid ongoing geopolitical and economic uncertainty.

Monthly Trend Analysis of U.S. Imports Based on Total FOB Value for HS Codes 7326, 7419, 7609, and 8487



U.S. CNC Components Imports (by Country)

Main query filters: HS Code: 7326 - articles of iron or steel, others or 7419 - articles of copper, others or 7609 - aluminum tube or pipe fittings (including couplings, elbows, and sleeves) or 8487 - machinery parts, not cont. electrical connectors, insulators, coils, contacts, etc. others

Country of Origin	01/01	/2024 -	- 04/30/2024		01/01	/2025 -	04/30/2025		Volume Change			
	FOB Value (USD)	%	Gross Weight (Kg.)	%	FOB Value (USD)	%	Gross Weight (Kg.)	%	FOB Value (USD)	%	Gross Weight (Kg.)	%
CHINA	661,496,435	23.93	213,926,099	59.38	663,931,874	25.85	229,682,679	58.90	2,435,439	0.37	15,756,580	7.37
MEXICO	636,368,115	23.02	220,330	0.07	535,078,422	20.83	180,512	0.05	-101,289,693	-15.92	-39,818	-18.08
CANADA	393,736,333	14.25	122,173	0.04	306,108,432	11.92	140,379	0.04	-87,627,901	-22.26	18,206	14.91
INDIA	109,450,326	3.96	32,223,538	8.95	127,991,918	4.99	37,952,364	9.74	18,541,592	16.95	5,728,826	17.78
GERMANY	138,245,360	5.01	9,449,017	2.63	126,827,738	4.94	6,815,956	1.75	-11,417,622	-8.26	-2,633,061	-27.87
TAIWAN	96,705,557	3.50	9,236,484	2.57	105,873,919	4.13	9,954,344	2.56	9,168,362	9.49	717,860	7.78
ITALY	71,866,661	2.60	6,141,962	1.71	76,971,913	3.00	7,650,757	1.97	5,105,252	7.11	1,508,795	24.57
JAPAN	75,783,850	2.75	9,838,557	2.74	69,000,589	2.69	7,171,181	1.84	-6,783,261	-8.96	-2,667,376	-27.12
S. KOREA	106,984,175	3.87	15,759,906	4.38	67,769,145	2.64	13,897,062	3.57	-39,215,030	-36.66	-1,862,844	-11.83
VIETNAM	36,610,085	1.33	10,896,699	3.03	60,051,827	2.34	17,653,773	4.53	23,441,742	64.04	6,757,074	62.02
Total	2,764,572,334	100	360,283,946	100	2,569,328,209	100	389,983,223	100	-195,244,125	-7.07	29,699,277	8.25

	01/01/	/2024 -	04/30/2024		01/01/	2025 -	04/30/2025		٧	olume Change		
HS Code (4)	FOB Value (USD)	%	Gross Weight (Kg.)	%	FOB Value (USD)	%	Gross Weight (Kg.)	%	FOB Value (USD)	%	Gross Weight (Kg.)	%
7326 - ARTICLES OF IRON OR STEEL, OTHERS	2,397,943,959	86.74	344,468,040	95.62	2,203,628,393	85.77	373,816,906	95.86	-194,315,566	-8.11	29,348,866	8.53
8487 - MACHINERY PARTS, NOT CONT. ELECTRICAL CONNECTORS, INSULATORS, COILS, CONTACTS, ETC. OTHERS	194,228,322	7.03	6,049,011	1.68	174,366,029	6.79	6,162,853	1.59	-19,862,293	-10.23	113,842	1.89
7419 - ARTICLES OF COPPER, OTHERS	138,203,285	5.00	6,825,104	1.90	157,327,077	6.13	7,571,866	1.95	19,123,792	13.84	746,762	10.95
7609 - ALUMINUM TUBE OR PIPE FITTINGS (INCLUDING COUPLINGS, ELBOWS, AND SLEEVES)	34,196,768	1.24	2,941,791	0.82	34,006,710	1.33	2,431,598	0.63	-190,058	-0.56	-510,193	-17.35
Total	2,764,572,334	100	360,283,946	100	2,569,328,209	100	389,983,223	100	-195,244,125	-7.07	29,699,277	8.25

During the first four months of 2025, the United States imported over US\$2.5 billion worth of critical CNC-related components classified under HS codes 7326, 8487, 7419, and 7609. Most of these imports originated from China, Mexico, and Canada, underscoring the continued reliance on established North American and Asian manufacturing hubs. Among the four categories, HS 7326 (other articles of iron or steel) accounted for the highest volume and total value, followed by 8487 (non-electrical machinery parts), 7419 (articles of copper), and 7609 (aluminum tube or pipe fittings). China remained the leading supplier, contributing nearly 26% of total import value, with Mexico and Canada following at 20% and 12%, respectively. European trade was also notable, with Italy and Germany serving as the primary EU partners. Across Asia, India, Taiwan, Japan, South Korea, and Vietnam played significant secondary roles in supporting the U.S. CNC supply chain.

However, beginning in February 2025, monthly import values have experienced a clear and sustained downward trend, a pattern not limited to Chinese-origin goods but also observed across North American suppliers. This contraction appears to be closely tied to the escalating tariff environment and regulatory uncertainty, particularly surrounding industrial components. With new and extended tariffs on CNC-related imports especially those with high strategic or technological relevance businesses are grappling with increased costs, sourcing disruptions, and a reassessment of supplier portfolios. As a result, many U.S. manufacturers are reducing order volumes, delaying procurement, or shifting to alternative sourcing strategies, which is reflected in the steady decline in total monthly FOB values across all major partner countries.



Compared to the same period in 2024, U.S. imports of the four key CNC-related components declined by 7% in total value during the first four months of 2025. This drop was mirrored across most trading partners: imports from Mexico fell by 16%, Canada saw a 22% decline, and South Korea saw a 36% drop. Other trading partners increased their exports to the U.S. including Vietnam which exported 64% more in total value in 2025 compared to the same period in 2024, India increased by 17%, and Taiwan by nearly 10%.

Among the various iron and steel components imported under HS code 7326, subheading 732690 (other articles of iron or steel) represented the largest share, accounting for 83% of the total import value during the first four months of 2025. This was followed by 732620 (articles of iron or steel wire), which also contributed significantly to overall trade activity. Notably, 732611 (grinding balls and similar articles for mills) saw a substantial increase, with import value rising 54% compared to the same period in 2024. Even more striking was the 256% surge in import volume measured by gross weight (kg), indicating a sharp rise in demand for these industrial milling components, possibly driven by growth in domestic processing industries or shifting supply chain strategies.

U.S. CNC Components Exports (by Country)

Main query filters: HS Code: 7326 - articles of iron or steel, others or 7419 - articles of copper, others or 7609 - aluminum tube or pipe fittings (including couplings, elbows, and sleeves) or 8487 - machinery parts, not cont. electrical connectors, insulators, coils, contacts, etc. others

Country of Destination	01/01,	01/01/2024 - 04/30/2024					04/30/2025	Volume Change				
	FOB Value (USD)	%	Gross Weight (Kg.)	%	FOB Value (USD)	%	Gross Weight (Kg.)	%	FOB Value (USD)	%	Gross Weight (Kg.)	%
MEXIC0	1,326,991,030	48.83	158,810	0.23	1,241,322,585	46.51	653,439	0.80	-85,668,445	-6.46	494,629	311.46
CANADA	404,596,991	14.89	550,904	0.77	360,486,736	13.51	337,642	0.42	-44,110,255	-10.91	-213,262	-38.72
GERMANY	70,335,545	2.59	7,738,345	10.81	108,054,012	4.05	14,270,828	17.36	37,718,467	53.63	6,532,483	84.42
CHINA	76,343,725	2.81	8,370,834	11.70	83,196,819	3.12	7,902,577	9.62	6,853,094	8.98	-468,257	-5.60
FRANCE	76,690,421	2.83	2,585,710	3.62	63,891,946	2.40	1,657,460	2.02	-12,798,475	-16.69	-928,250	-35.90
SAUDI ARABIA	51,559,536	1.90	621,518	0.87	62,218,510	2.34	477,219	0.59	10,658,974	20.68	-144,299	-23.22
JAPAN	67,877,012	2.50	11,334,700	15.83	56,246,463	2.11	9,915,838	12.07	-11,630,549	-17.14	-1,418,862	-12.52
UNITED KINGDOM	58,413,020	2.15	1,774,116	2.48	48,064,862	1.81	2,308,791	2.81	-10,348,158	-17.72	534,675	30.14
SINGAPORE	33,318,982	1.23	753,485	1.06	42,674,375	1.60	767,052	0.94	9,355,393	28.08	13,567	1.81
S. KOREA	37,972,038	1.40	4,325,269	6.05	39,079,441	1.47	6,322,167	7.69	1,107,403	2.92	1,996,898	46.17
Total	2,717,931,284	100	71,605,601	100	2,669,059,111	100	82,214,249	100	-48,872,173	-1.80	10,608,648	14.82





	01/01/2	04/30/2024	01/01,	04/30/2025		Volume Change						
HS Code (4)	FOB Value (USD)	%	Gross Weight (Kg.)	%	FOB Value (USD)	%	Gross Weight (Kg.)	%	FOB Value (USD)	%	Gross Weight (Kg.)	%
7326 - ARTICLES OF IRON OR STEEL, OTHERS	2,238,637,485	82.37	64,687,344	90.34	2,168,118,160	81.24	74,684,488	90.85	-70,519,325	-3.16	9,997,144	15.46
8487 - MACHINERY PARTS, NOT CONT. ELECTRICAL CONNECTORS, INSULATORS, COILS, CONTACTS, ETC. OTHERS	312,181,998	11.49	4,436,028	6.20	330,710,074	12.40	4,931,109	6.00	18,528,076	5.94	495,081	11.17
7419 - ARTICLES OF COPPER, OTHERS	105,085,821	3.87	1,049,232	1.47	104,562,177	3.92	1,036,470	1.27	-523,644	-0.50	-12,762	-1.22
7609 - ALUMINUM TUBE OR PIPE FITTINGS (INCLUDING COUPLINGS, ELBOWS, AND SLEEVES)	62,025,980	2.29	1,432,997	2.01	65,668,700	2.47	1,562,182	1.91	3,642,720	5.88	129,185	9.02
Total	2,717,931,284	100	71,605,601	100	2,669,059,111	100	82,214,249	100	-48,872,173	-1.80	10,608,648	14.82





Interestingly, despite the sharp decline in imports, the United States exported a total of US\$2.6 billion worth of CNC-related components—classified under HS codes 7326, 8487, 7419, and 7609—during the first four months of 2025. The primary destinations for these exports were Mexico, Canada, and Germany, reflecting strong demand among key manufacturing and industrial partners.

Notably, exports to Germany surged by 53% in value compared to the same period in 2024, signaling increased transatlantic industrial collaboration or possibly supply chain shifts within the EU. Similarly, exports to Singapore rose by 28%, further highlighting Southeast Asia's growing role in advanced manufacturing and assembly operations.



Among the four product categories, HS 7326 (other articles of iron or steel) dominated outbound trade, accounting for 81% of the total export value so far in 2025. This was followed by HS 8487 (non-electrical machinery parts) at 12.4%, HS 7419 (articles of copper) at 4%, and HS 7609 (aluminum tube or pipe fittings) at 2.4%. These figures reflect the U.S. continued strength in high-value, precision-manufactured components, and may suggest a relative resilience in its export competitiveness even amid turbulent global trade dynamics.

While the first four months of 2025 offer valuable insights into shifting trade patterns in the U.S. CNC component market, the path forward remains uncertain. The sharp declines in import volumes, coupled with selective growth in export destinations, suggest that manufacturers are actively recalibrating sourcing and distribution strategies in response to evolving geopolitical and economic pressures. However, with global tariff regimes still in flux, supply chain vulnerabilities exposed, and diplomatic tensions lingering across key trade corridors, the long-term stability of this sector is far from assured. As stakeholders navigate this volatile landscape, the next several quarters will be critical in determining whether current trends represent a temporary disruption or signal a more permanent realignment in global CNC trade.

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