



2027 SFSA North American Steel Casting Market Forecast

Expanded market analysis integrating foundry survey intelligence, ITR Economics, physical production, orders/backlogs, public procurement and end-market indicators

Marketing Committee Role

The function of the Marketing Committee is to **broaden the market for and promote the use of steel castings** by investigating and developing new markets, developing and implementing an effective marketing program, and communicating the advantages of steel castings to present and prospective consumers in an effective manner.

To carry out its mission, the committee maintains liaison with other committees of the Society through the staff, identifies technical, business and market topics of interest to customers and SFSA members, directs development of the material and delivery of the information. The committee develops the deliverables for the marketing program such as messaging, competitive input, target market, and specific planning. The committee also performs related market research to help guide the work of the Society and **prepares each year for the Society an annual forecast of steel casting demand.....**

Properties/Chemistry By Standard By Alloy Family By Microstructure By UNS By Wrought Equivalent

Mechanical

Standards specify either a minimum or a range of mechanical properties. Your entered value(s) must be equal to or higher than the minimum or within the range of the maximum. Mechanical properties specified for a grade in a standard to have a match result. You can search tensile strength (UTS), yield strength (YS), impact toughness, and rupture strength in Metric (SI) or Imperial System. You only need to input values using one unit and your entered value will automatically be converted to the other unit.

Hardness BHN HBW HRC

Tensile strength ksi or MPa

Yield strength ksi or MPa

Elongation%

Reduction in area%

Impact Foot-pounds or Joules

Impact test temperature in °F or °C

Stress rupture test ksi or MPa

100 hour rupture test MPa at temperature in °C (Optional)

Chemistry

All values are in weight percent (wt%). Standards specify either a maximum or a range of wt% for various elements. Your entered value(s) must be equal to or lower than the maximum or within the range of the minimum. Elements that are specified as "Others" in a standard are not included in the search algorithm. To see these "Other" elements of a certain grade, click the "Others" tab for that specific grade (either shown in the search results or by going to the other tabs e.g. By Standard)

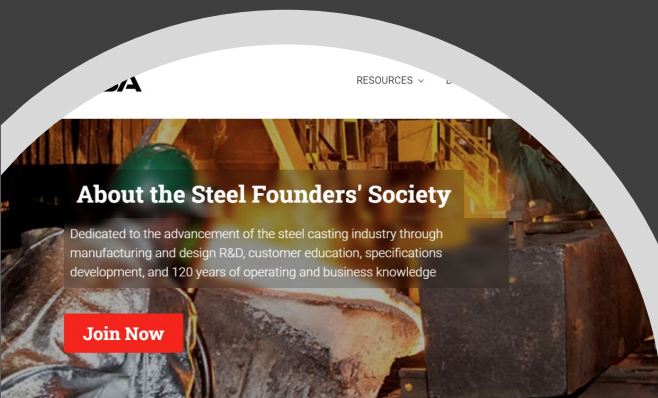
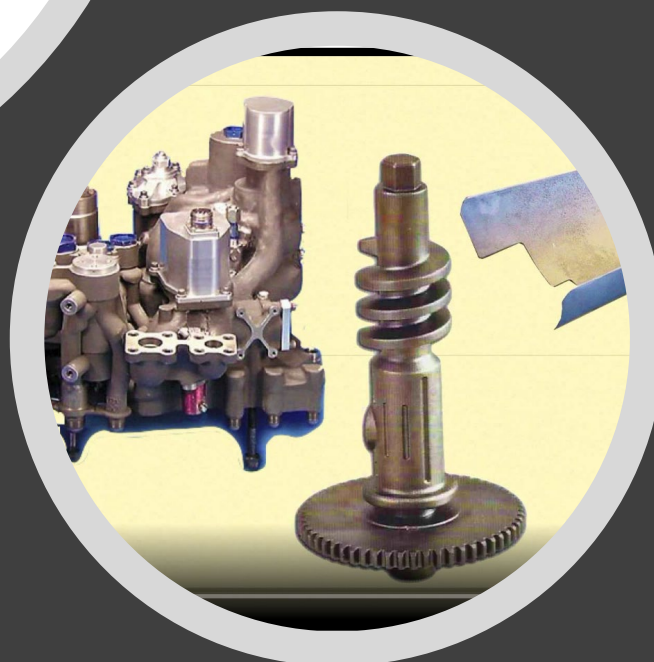
Al%	As%	Ba%	Bi%
C%	Co%	Cr%	Fe%
Mn%	Mo%	N%	P%
Ni%	Pb%	S%	Si%
Se%	Sn%	W%	Zn%
Ti%	V%		



Steel Founders' Society of America

Customer Education Resources

- Steel Foundry Directory
- Free SFSA Publications
- Online Specification/Material Database
- Customer Webinars
- White Papers
- Foundry Glossary
- Steel Casting Design Videos
- Handbook Supplement 6 Update
- Steel Casting NDT Methods

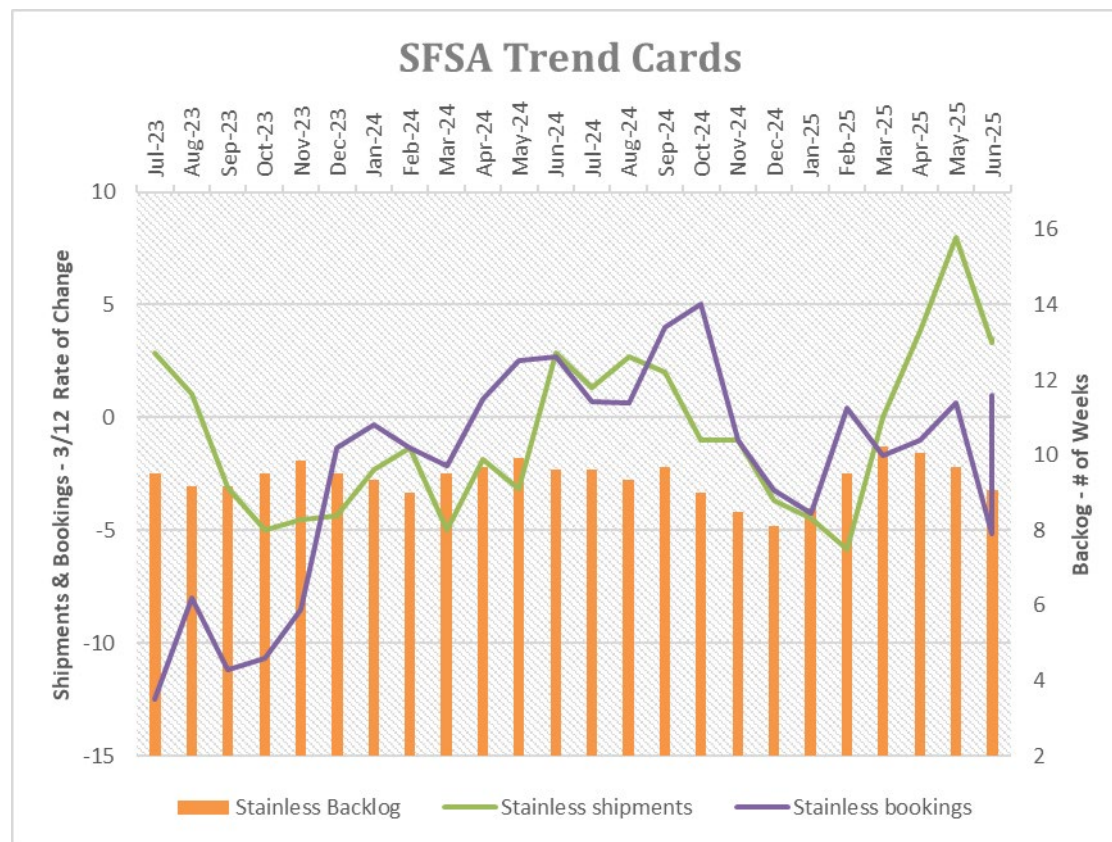
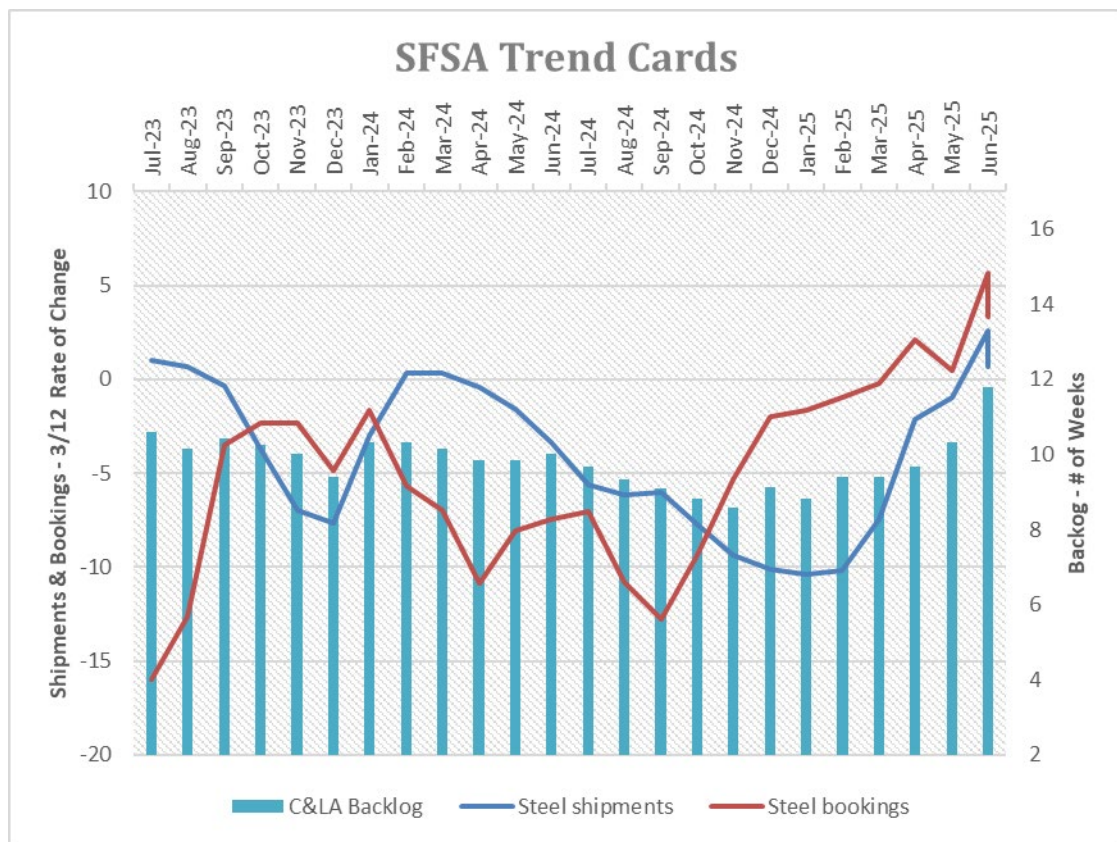


SFSA Trends Report

Monthly Business Trends Survey

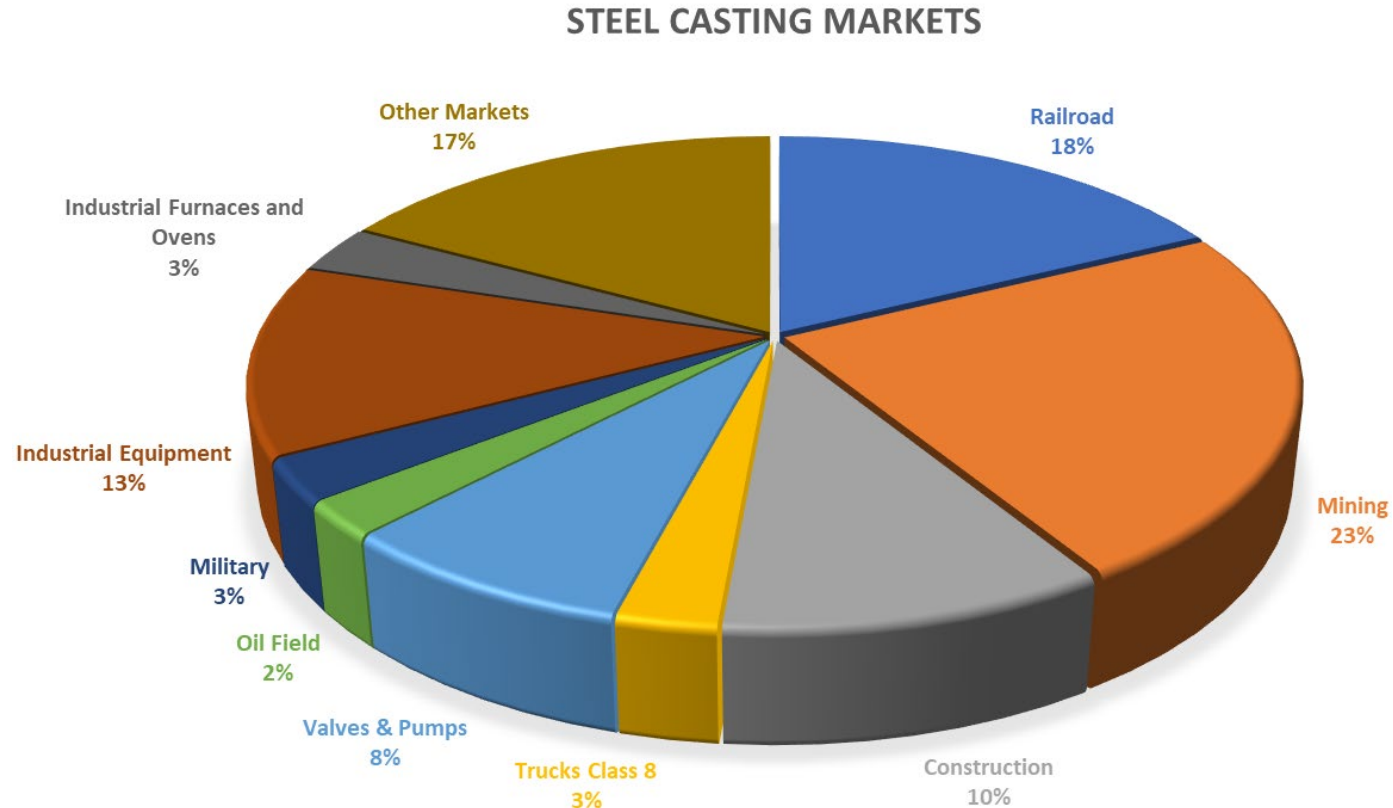
- YoY comparison of C&LA and stainless shipments and bookings
 - YoY comparison of C&LA and stainless backlog
 - Business bookings – 3-month outlook
 - Workforce – 3-month outlook

- Summary results no longer published in the Casteel Reporter
- Survey link posted in the Market News of Casteel Reporter



Previous Forecast Process

- Segmented primary markets
- Identified key customers and users in each market
- Analyze customer top line sales
- Market survey to members
- Leverage customer associations
 - Pumps, Valves, Rail, Equip. Mfg.
- Review analyst reports



Steel Markets Survey

SFSA Markets	Steel Casting Examples
Rail/Transit	frames, couplings, bolsters, track components
Mining - Equipment	axle housing, frame components, suspension, gear case
Mining - Consumables	G.E.T., liners, hammers, grate plates, cement and aggregate components
Construction Equipment	axle components, sprocket, end caps, transmission housing
Truck - Class 8	suspension brackets, brake components, axle spindles, fifth wheels
Pump	housing, impeller, covers, bowls
Valve	strainer bodies, bonnets, butterfly valves
Oil & Gas	port adapters, brackets, levers, slip linkages
Military	ground vehicle and maritime components
Industrial Furnace and Oven Mfg.	Furnace, heat treat, steel mill components - rollers, links, baskets
Industrial Machinery	Industrial equipment parts - pulp & paper, food, shotblast - plates, wheels, sprockets, flanges
Engine, Turbine, and Power Transmission	Turbine engine - compressor cases, combustor basket
OTHER MARKETS	
Agricultural Implement Manufacturing	Agricultural Products - Hitch Links, Sprockets
Electric Power Generation	Power Generation - Coreforms, deflector blocks
Aerospace Product and Parts Manufacturing	Aerospace bearing supports, combustor cases, compressor cases, exhaust diffusers, stationary inlet guides, swirlers
Special Die and Tool Manufacturing	Dies, Tooling, fixtures

Source	Role in forecast
SFSA Foundry Survey	Direct 2026/2027 casting-market expectations; inventory, sourcing and customer timing
ITR Economics Trends Report — Sep. ‘26	End-market forecasts for machinery, mining, defense, trucks, oil/gas and construction
OEM filings / earnings	Supporting backlog, orders, regional demand and customer commentary
Federal Reserve G.17 / FRED	Real industrial production and capacity utilization
U.S. Census M3	Orders, shipments, inventories and unfilled orders
DoD / Army / Navy budget materials	Procurement quantities, shipbuilding, combat vehicles and industrial-base investment
EIA / FERC	Oil, gas, LNG, pipeline and energy infrastructure
ACT / FTR / rail industry sources	Physical truck and railcar builds, orders, backlog and replacement
USITC DataWeb / BLS PPI	Trade/sourcing pressure and nominal-to-real price adjustment

ITR Trends Report — US Economy At-a-Glance

	Historical 3/12	Historical 3MMA	Current 3/12	2026	2027	2028	Highlights
US Real Gross Domestic Product			2.1	2.1	2.1	2.5	GDP rose in the second quarter, driven in part by a resilient consumer and AI-related investment.
	Historical 12/12	Historical 12MMA	Current 12/12	2026	2027	2028	Highlights
US Industrial Production Index			1.2	1.5	-0.3	1.7	The Production 12MMA will rise modestly through at least 2028. Consumer and business balance sheets remain relatively sound.
US Private Sector Employment			0.4	0.5	1.4	1.6	The labor market is broadly stable, with Employment growth expected through at least 2028.
	Historical 12/12	Historical 12MMT	Current 12/12	2026	2027	2028	Highlights
US Nondefense Capital Goods New Orders (excluding aircraft)			8.0	10.6	1.3	0.3	Outlook raised on stronger demand in select markets, tighter inventories, and higher prices. We still expect that 2027 will be a weaker year.
US Total Retail Sales			4.5	4.8	3.0	5.4	About two-thirds of growth is from price and one-third from volume. Current stressors will compound, causing growth to slow next year.
US Wholesale Trade of Durable Goods			10.4	10.3	1.4	5.6	Favorable spending and inventory trends support growth. The 12MMT is likely to track the upper end of the forecast range.
US Wholesale Trade of Nondurable Goods			7.6	8.8	0.2	5.2	US Surface Trade with Mexico and Canada is rising above its prior slump. Wholesale Trade will rise into early 2027.
Data Trend - 3MMT, 12MMT, 3MMA, or 12MMA data trend value Rate-of-Change - 3/12 or 12/12 rate-of-change value  Rate-of-Change Graph  Data Trend Graph  RECOVERY  ACCELERATING GROWTH  SLOWING GROWTH  RECESSION							

ITR Trends Report — US Manufacturing Economy At-a-Glance

	Historical 12/12	Historical 12MMA	Current 12/12	2026	2027	2028	Highlights
US Chemicals and Chemical Products Production Index			0.3	0.2	0.7	2.3	Expanding industry capacity should help set the stage for firmer growth later in the forecast period.
US Civilian Aircraft Equipment Production Index			9.0	7.7	8.6	6.1	Expect year-over-year Production growth through at least 2028. Build rates are improving.
US Food Production Index			0.7	-0.1	0.4	0.5	The 12MMA will decline into mid-2027, then rise through at least 2028. Slowing real incomes are likely to pinch households, even for necessities.
US Heavy-Duty Truck Production Index			-13.3	4.2	16.7	-4.0	US Class 4-7 Truck Production is accelerating, while US Class 8 Diesel Truck Production is below year-ago levels but showing early signs of recovery.
US Medical Equipment and Supplies Production Index			-1.7	-0.3	4.2	0.5	Domestic Production is gradually rising. Medical device companies face cost pressures domestically and abroad.
US Mining Production Index (excluding oil and gas)			-0.1	0.5	-3.8	1.1	Plan for Production contraction next year as tempered industrial sector activity limits demand.
US Oil and Gas Extraction Production Index			3.3	2.1	-0.1	3.6	Production will stagnate in 2027; tentative rise in rig activity and efficiency gains support renewed growth in 2028.
Legend							
Data Trend - 3MMT, 12MMT, 3MMA, or 12MMA data trend value							
Rate-of-Change - 3/12 or 12/12 rate-of-change value		Rate-of-Change Graph	Data Trend Graph	RECOVERY	ACCELERATING GROWTH	SLOWING GROWTH	RECESSION

ITR Trends Report — US Manufacturing Economy At-a-Glance

	Historical 12/12	Historical 12MMT	Current 12/12	2026	2027	2028	Highlights
North America Light Vehicle Production			-0.8	-0.2	-2.1	4.6	Production is not expected to spur growth opportunities for volume.
US Computers and Electronics New Orders			10.2	15.3	3.3	0.3	We upgraded the outlook due to an exceptional industry price shock and substantial AI investment and defense demand.
US Construction Machinery New Orders			23.4	13.5	-6.5	2.8	We upgraded the forecast to account for stronger equipment demand and high prices. Rise will extend into early 2027.
US Defense Capital Goods New Orders			29.0	31.7	25.6	-3.4	Elevated backlogs and rising shipments point to strong New Orders demand, but capacity constraints will influence the pace of growth.
US Electrical Equipment New Orders			9.8	10.9	2.5	3.5	Forecast lifted on higher-than-anticipated demand and prices from the high-tech buildout. Expect moderation in prices and demand late next year, but a generally positive trajectory overall.
US Machinery New Orders			10.8	12.6	4.0	-0.2	We lifted the forecast due in part to pricing strength and demand resilience. Expect a 12MMT peak in mid-2027.
US Metalworking Machinery New Orders			6.3	9.5	1.9	3.2	Dollar-growth is probable in metalworking, but volumes will likely be softer next year.

Legend

Data Trend - 3MMT, 12MMT, 3MMA, or 12MMA data trend value

Rate-of-Change - 3/12 or 12/12 rate-of-change value



Rate-of-Change Graph



Data Trend Graph



RECOVERY



ACCELERATING GROWTH

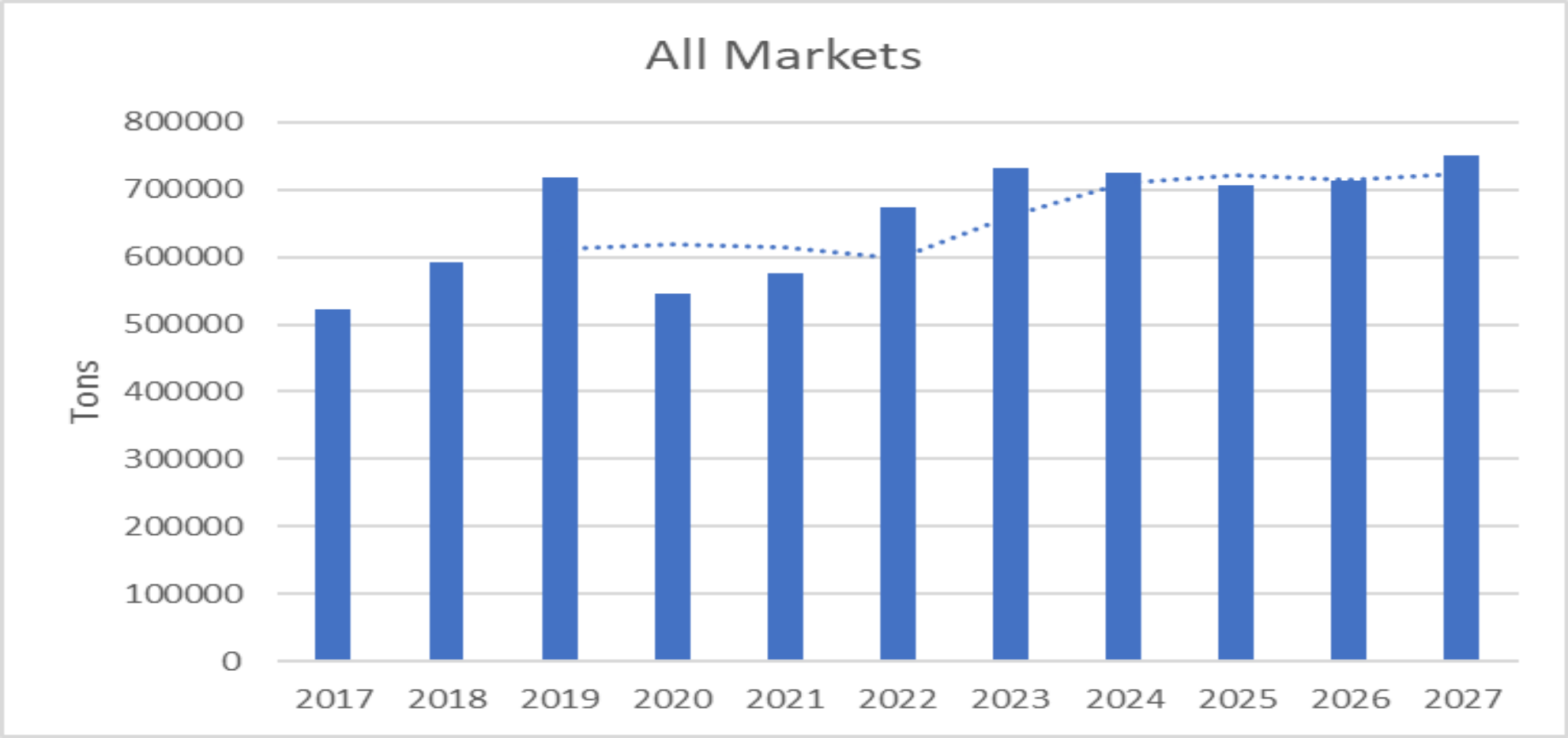


SLOWING GROWTH



RECESSION

All Markets — North American Steel Casting Forecast



2026 vs. 2025

+1%

Steel casting tonnage

2027 vs. 2026

+5%

Steel casting tonnage

Executive Forecast Summary

Market	2026	2027
Construction Machinery	+4%	+2%
Mining	+2%	+1%
Defense / Military	+7%	+8%
Oil & Gas	-2%	+4%
Pumps & Valves	+1%	+3%
Rail & Transit	-8%	+12%
Class 8 Trucks	+7%	+12%
Industrial Machinery	+5%	+4%
Industrial Furnaces & Ovens	-10%	+3%
Engine / Turbine / Power Transmission	+10%	+6%
Other Markets	+3%	+3%

2027 market hierarchy

Strong growth

- Defense / Military
- Class 8 Trucks
- Rail & Transit recovery
- Engine/Turbine/ Power Transmission

Moderate growth

- Industrial Machinery
- Pumps & Valves
- Industrial Furnaces

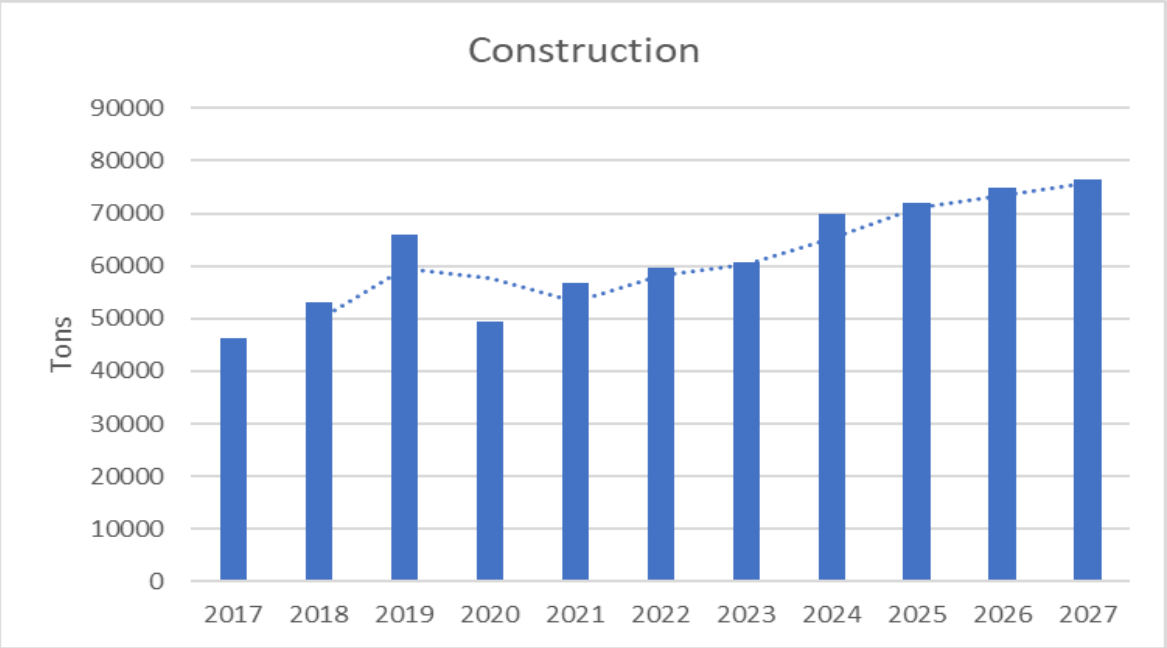
Flat / constrained

- Construction Machinery
- Mining

Transitioning

- Oil & Gas: inventory normalization, modest recovery

Construction Machinery — North American Steel Casting Forecast



2026 vs. 2025

+4%

Steel casting tonnage

2027 vs. 2026

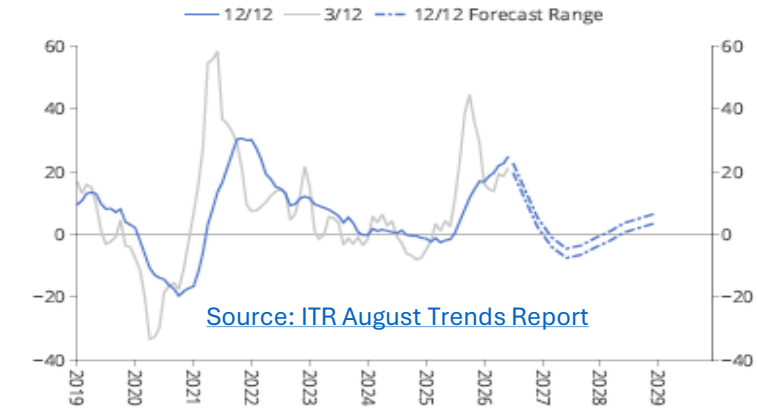
+2%

Steel casting tonnage

Forecast interpretation

- 2026 production benefits from existing backlog and infrastructure activity.
- 2027 new order weakness is expected to catch up with production; backlog should cushion the decline.
- Forecast is therefore held relatively flat rather than adopting ITR's negative new-order rate.

Rate-of-Change



External / physical-market evidence

- ITR Construction Machinery New Orders: +3.9% (2026), -2.6% (2027)
- Orders currently elevated, but ITR expects decline through 2H27
- Data centers, power facilities and public infrastructure limit downside

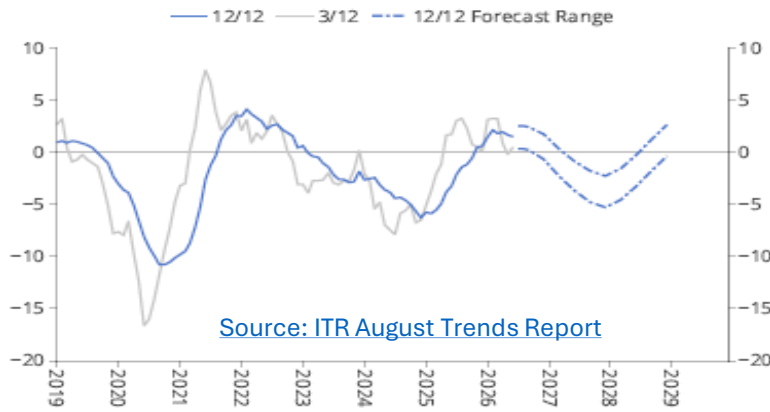
Key watch items

- Backlog conversion rate
- Housing affordability / starts
- Public infrastructure execution
- China / offshore sourcing

Mining — North American Steel Casting Forecast



Rate-of-Change



External / physical-market evidence

- ITR Mining Production ex-O&G: +0.5% (2026), -3.8% (2027)
- Mining machinery orders currently stronger than mine production
- Critical-mineral sourcing and copper/electrification create selective upside

Forecast interpretation

- Consumables dominate tonnage and are tied to mine throughput/utilization.
- Equipment can outperform production when mines invest in productivity or strategic-mineral capacity.
- The combined outlook is modest growth in 2026 followed by flat 2027 casting tonnage.

Key watch items

- Mine capacity utilization
- Copper / critical-mineral projects
- OEM mining-equipment orders
- Wear-part import penetration

Equipment

2026 2027

+5% **+3%**

CAPEX / new & replacement equipment

Consumables

2026 2027

+1% **+1%**

Throughput / wear / replacement

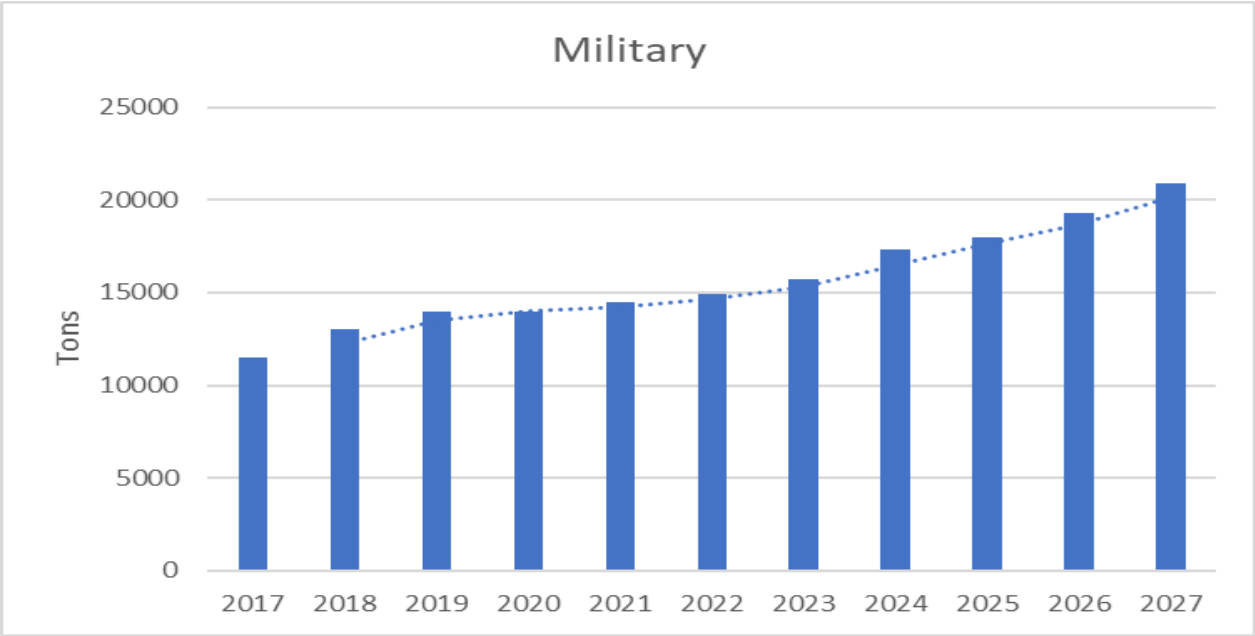
Blended Mining

2026 2027

+2% **+1%**

35% equipment / 65% consumables

Defense — North American Steel Casting Forecast



2026 vs. 2025

+7%

Steel casting tonnage

2027 vs. 2026

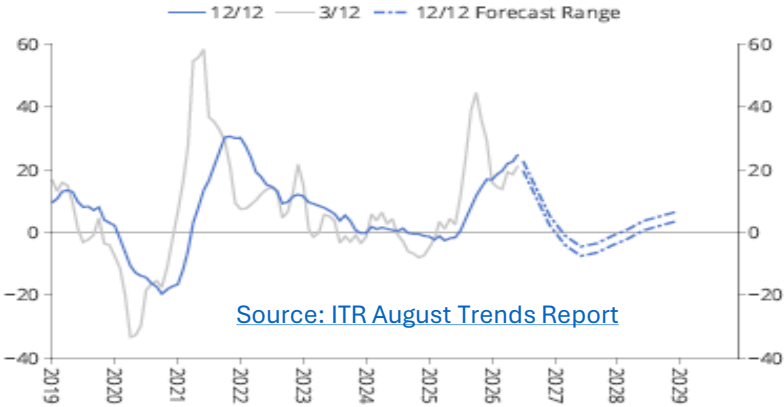
+8%

Steel casting tonnage

Forecast interpretation

- Defense is the strongest structural market, but order growth cannot be translated one-for-one to castings.
- Tier II/III timing, qualification, program mix and capacity constraints create lagged realization.
- +7%/+8% captures sustained growth while remaining far below headline procurement/order rates.

Rate-of-Change



External / physical-market evidence

- ITR Defense Capital Goods Orders: +31.7% (2026), +25.6% (2027)
- FY27 procurement supports combat vehicles and shipbuilding
- Submarine production, strong procurement, and sustainment support accelerating casting demand

Key watch items

- Appropriations vs. request timing
- Submarine / naval build execution
- Combat-vehicle program schedules
- Qualified casting capacity

Defense Forecast — Segment Drivers

Indicative casting-demand outlook by defense segment

Segment	2026	2027	Primary casting drivers	Confidence
Ground Combat	+6%	+7%	AMPV/XM30/vehicles, artillery, weapons	High
Marine / Naval	+5%	+6–9%	Submarines, surface ships, valves/pumps, sustainment	Very High
Munitions / Missiles	+6–10%	+8–12%	PrSM, MSE, IFPC, launchers, artillery/kinetics	Medium
Sustainment / Spares	+4–6%	+5–7%	Depot work, DLA spares, aging platforms	High

FY27 procurement signal

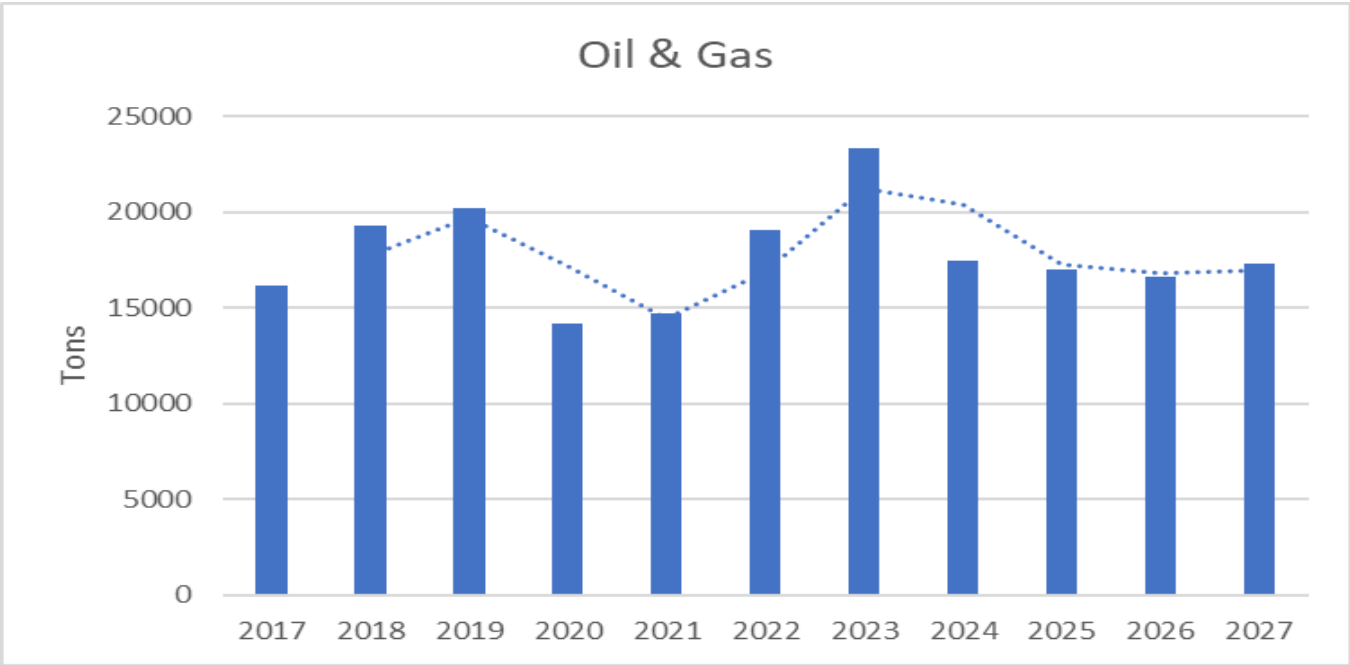
- Army shifts procurement toward missiles, air defense, next-generation combat vehicles and mobility systems.
- Submarine supplier network is being expanded and modernized; castings are specifically tracked as a critical marketplace.
- Tier II/III timing means foundry demand can lead platform deliveries and prime revenue.

Forecast conclusion

Defense remains one of the strongest 2027 steel-casting end markets. The sub-tier/weapon-system model supports upside to the prime-revenue forecast, particularly in naval and munitions supply chains.

Sources: FY27 Army Budget Highlights; Navy SIB Supply Chain / Marketplace Health Assessments; Navy supplier-development updates.

Oil & Gas — North American Steel Casting Forecast



2026 vs. 2025

-2%

Steel casting tonnage

2027 vs. 2026

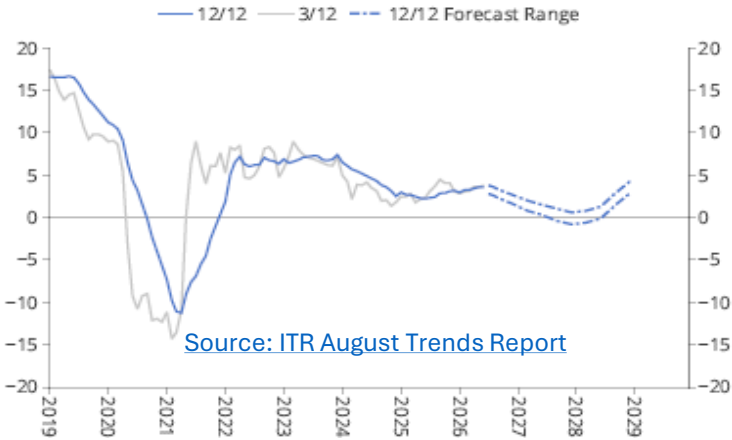
+4%

Steel casting tonnage

Forecast interpretation

- 2026 casting shipments can decline even while production rises because customers are correcting inventory.
- 2027 normalization supports modest recovery, but flat extraction and cautious CAPEX argue against a strong rebound.
- LNG/gas infrastructure is stronger than conventional upstream drilling.

Rate-of-Change



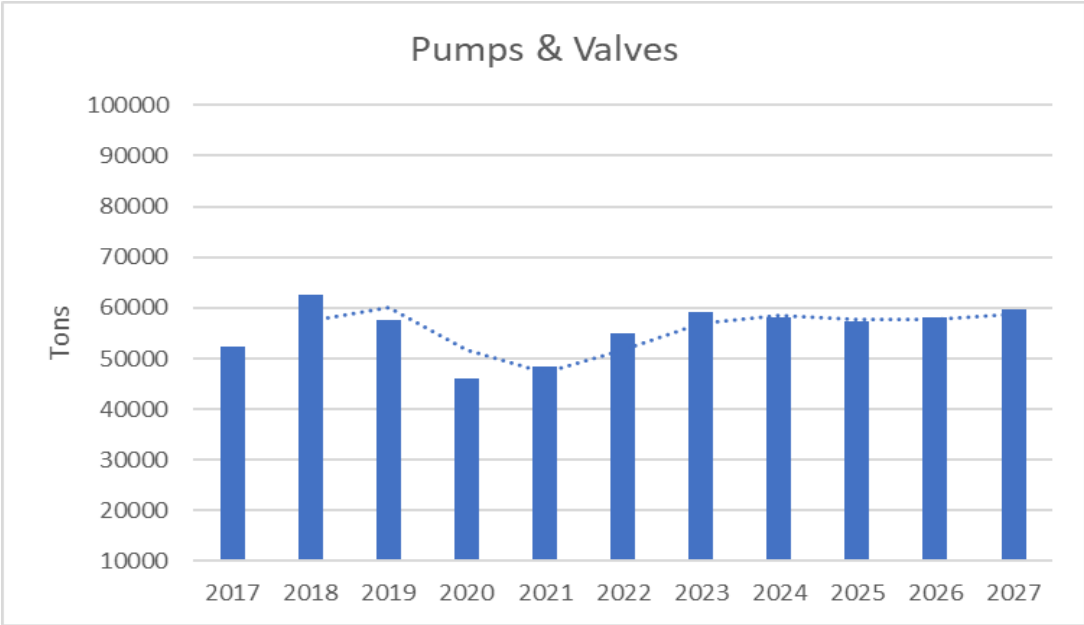
External / physical-market evidence

- ITR O&G Extraction Production: +2.1% (2026), -0.1% (2027)
- EIA outlook supports continued U.S. crude/gas output and LNG export growth
- Upstream equipment investment remains cautious relative to production

Key watch items

- Customer inventory normalization
- Oil-price / rig-count response
- LNG project execution
- Tariffs and imported equipment

Pumps & Valves — North American Steel Casting Forecast



2026 vs. 2025

+1%

Steel casting tonnage

2027 vs. 2026

+3%

Steel casting tonnage

Forecast interpretation

- 2026 is relatively flat because direct foundry demand is uneven despite strong OEM bookings.
- 2027 improves as water, LNG, defense and selected industrial projects progress.
- North American sourcing share is a critical adjustment to global OEM demand.

Pump & Valve End Market	2026–27 Signal	Casting Implication
Oil & Gas	Flat / modest recovery	Neutral
LNG / Gas Infrastructure	Strong expansion	Positive
Water / Wastewater	Infrastructure investment	Positive
Power Generation	Strong gas/nuclear/grid investment	Positive
Chemical / Process	Moderate	Neutral–Positive
Mining	Low-single-digit / mixed	Neutral
Defense / Naval / Nuclear	Strong procurement	Positive
Global sourcing	Continued pressure	Negative for N.A. production

Sources: Valve Manufacturers Association (VMA)/Hydraulic Institute Market Outlook; VMA 2026 Valve Forum End-Use Market Outlooks; U.S. EIA; U.S. EPA; SFSA analysis.

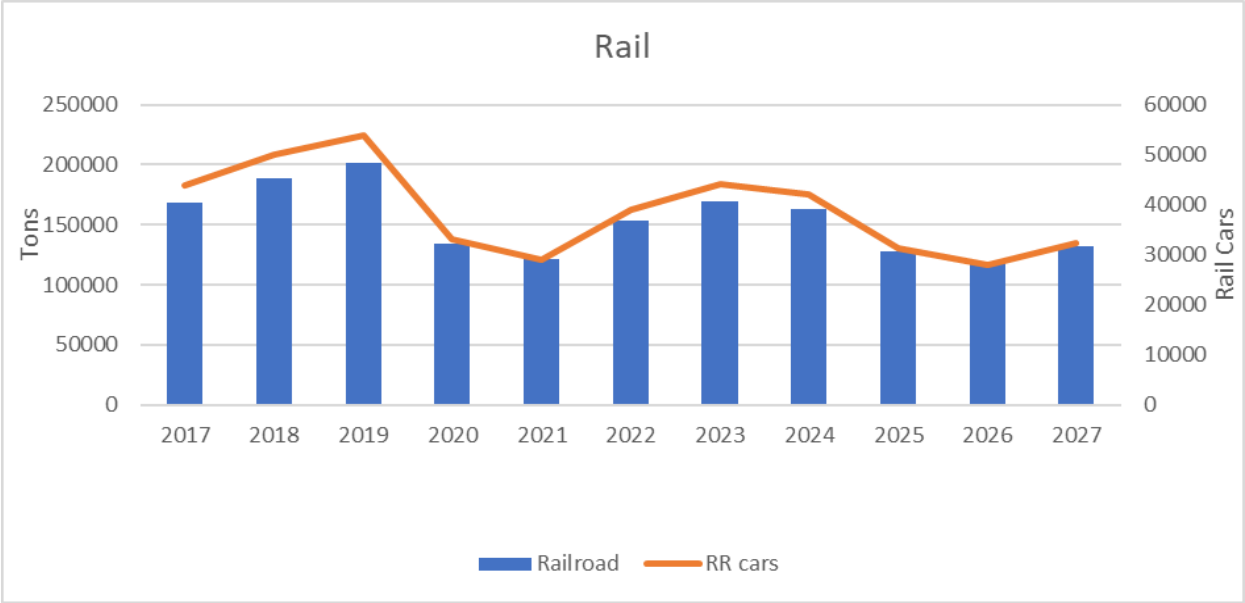
External / physical-market evidence

- Flow-control OEM bookings/backlogs have been positive but globally sourced
- Water/sewer construction and LNG infrastructure support 2027
- Defense/nuclear provide higher-value niche demand

Key watch items

- USITC 8413/8481 import penetration
- Water infrastructure spending
- LNG/pipeline awards
- Nuclear/defense project timing

Rail & Transit — North American Steel Casting Forecast



Market Indicator	Latest Public Data	Forecast Implication for Steel Castings
2024 railcar deliveries	42,486	Prior-cycle production level
2025 railcar deliveries	31,205	–26.5% YoY
Q1 2026 deliveries	5,957	Confirms continued 2026 production trough
Q1 2026 orders	5,654	Orders approaching current delivery rate
Q1 2026 backlog	23,128	Relatively lean backlog limits near-term upside
U.S. rail traffic, H1 2026	+3.4% YoY	Improving underlying utilization/freight environment
N.A. rail traffic, H1 2026	+2.9% YoY	Positive operating-demand signal
2027 direction	Recovery	Replacement cycle supports higher casting demand

Sources: Railway Supply Institute (RSI), ARCI Quarterly Summary; Association of American Railroads (AAR); SFSA analysis.

2026 vs. 2025

-8%

Steel casting tonnage

2027 vs. 2026

+12%

Steel casting tonnage

Forecast interpretation

- 2026 reflects sub-replacement new car production and weak freight conditions.
- 2027 physical deliveries rebound sharply, but casting growth is set well below the ~36% railcar-build increase.
- Replacement—not a commodity boom—is the principal recovery mechanism.

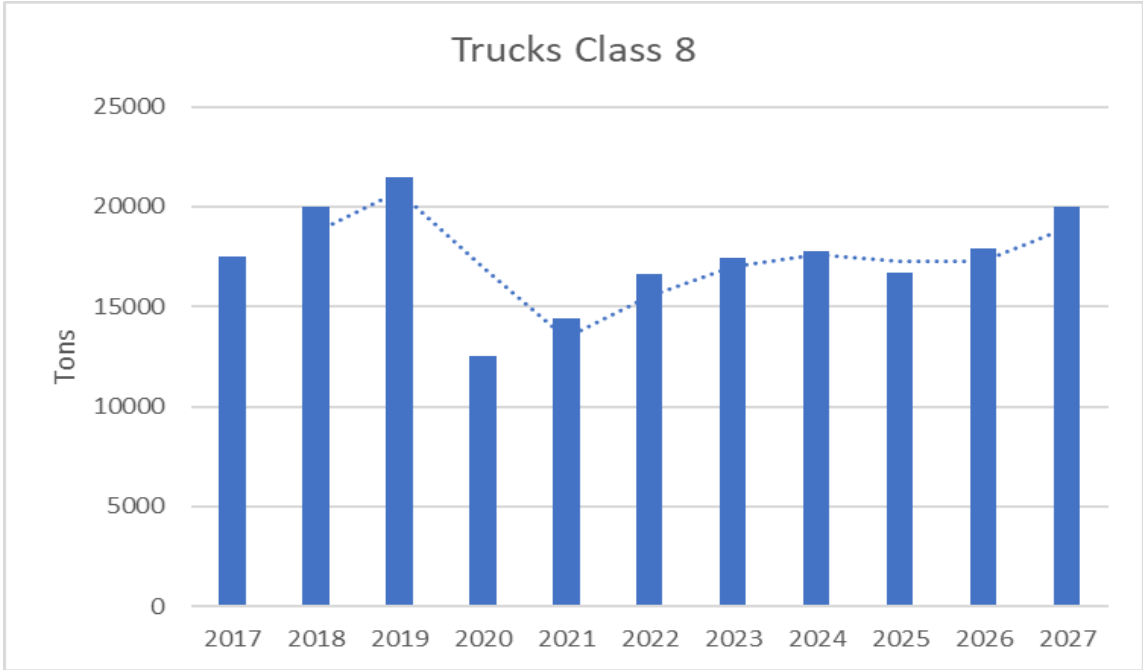
External / physical-market evidence

- Railcar expectations: ~23k (2026), 31k (2027), 41k (2028)
- Large retirement/replacement requirement supports medium-term builds
- Casting-intensive components include frames, bolsters, couplers and truck components

Key watch items

- Railcar orders/backlog
- Fleet retirements / stored cars
- Freight carloads and utilization
- Steel-serving fleet replacement

Class 8 Trucks — North American Steel Casting Forecast



2026 vs. 2025

+7%

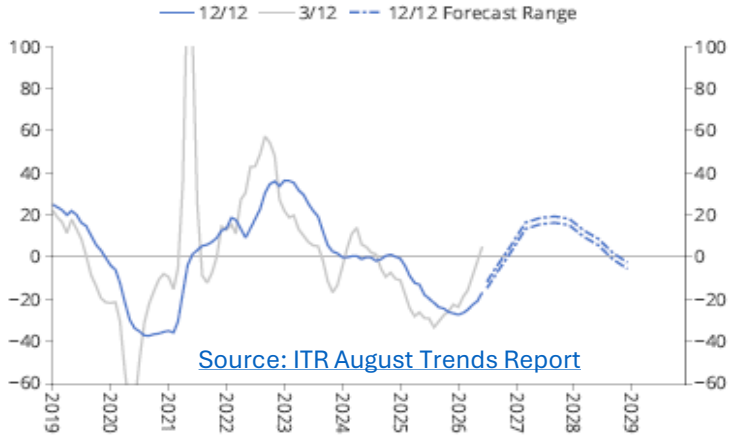
Steel casting tonnage

2027 vs. 2026

+12%

Steel casting tonnage

Rate-of-Change



External / physical-market evidence

- ITR Heavy-Duty Truck Production: +4.2% (2026), +16.7% (2027)
- Industry orders/backlog point to faster late 2026 and 2027 ramp
- Replacement demand and newer truck efficiency support builds

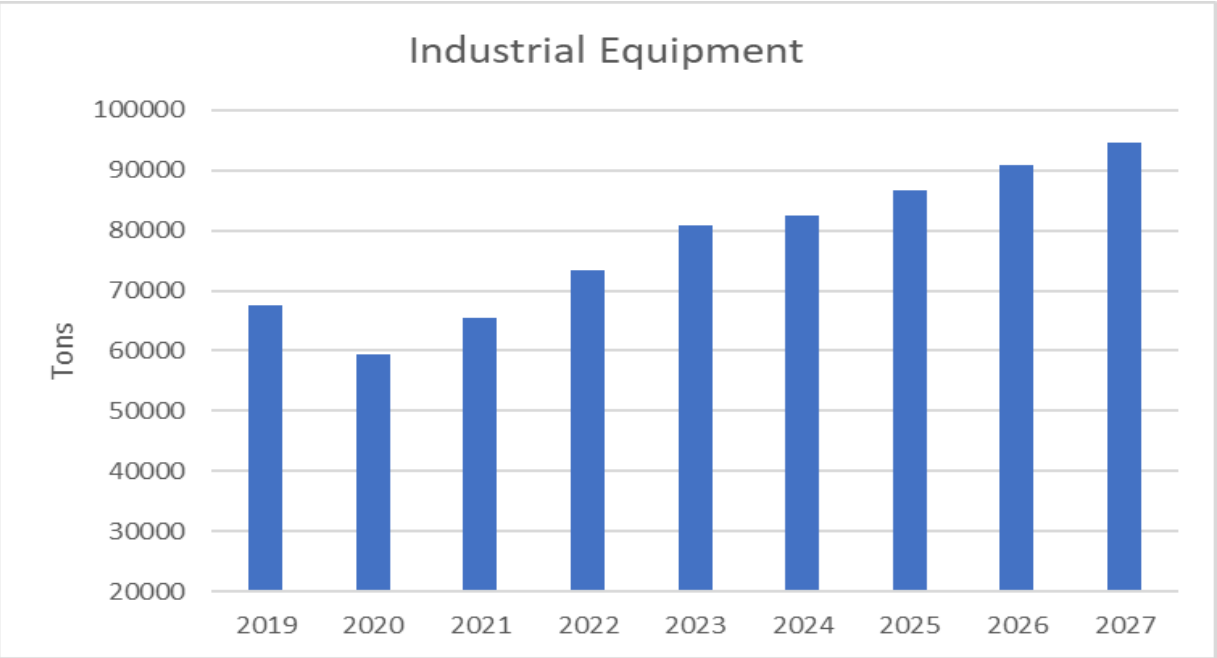
Forecast interpretation

- Physical truck production is the best direct external indicator for casting demand.
- 2026 forecast sits between ITR and the foundry response.
- 2027 +12% captures double digit production recovery while discounting customer specific share gains and casting-content/sourcing variation.

Key watch items

- Customer inventory normalization
- Oil price / rig count response
- LNG project execution
- Tariffs and imported equipment

Industrial Machinery— North American Steel Casting Forecast



2026 vs. 2025

+5%

Steel casting tonnage

2027 vs. 2026

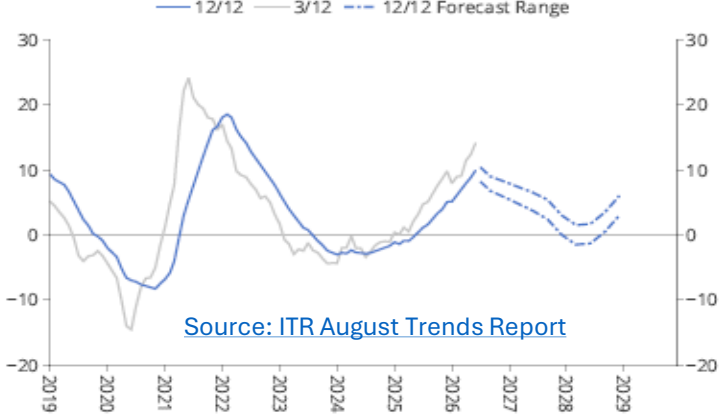
+4%

Steel casting tonnage

Forecast interpretation

- 2026 +5% is well supported by survey and broad machinery orders.
- 2027 slows because ITR sees a plateau, but favorable niches keep casting tonnage above the +1.5% broad order forecast.
- Market mix matters more than aggregate machinery growth.

Rate-of-Change



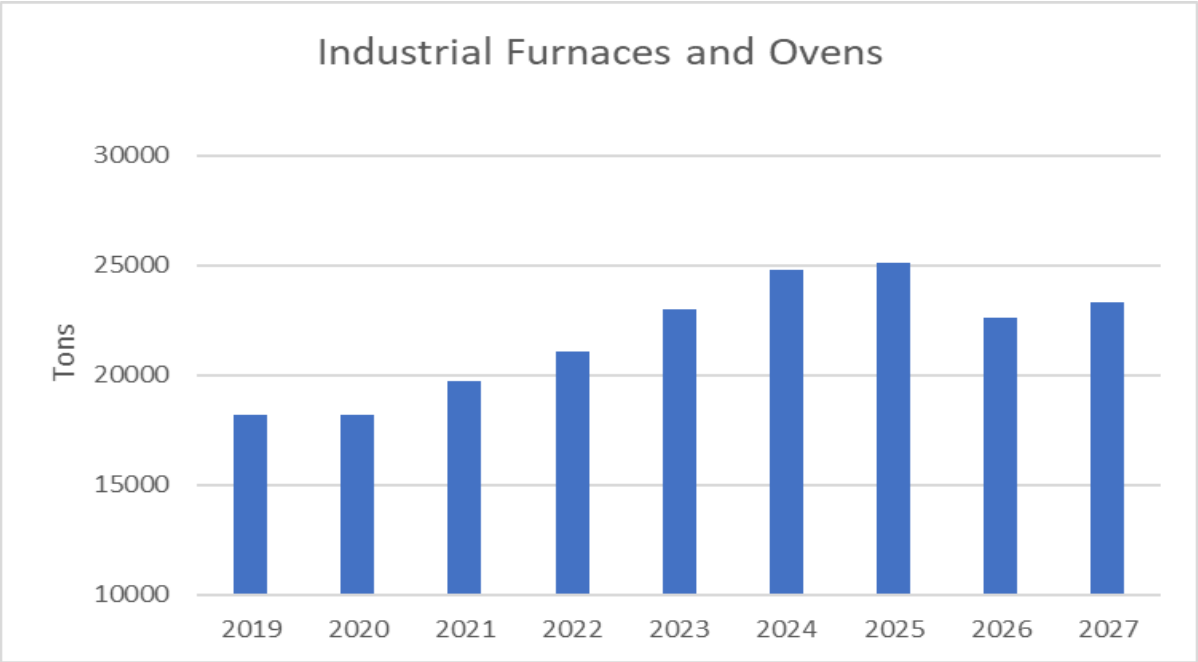
External / physical-market evidence

- ITR Machinery New Orders: +7.0% (2026), +1.5% (2027)
- Fed industrial machinery output has risen through mid-2026
- High-tech related machinery materially outperforms legacy markets

Key watch items

- AI/data center capex
- Turbine/compressor demand
- Legacy material handling weakness
- Customer specific backlog

Industrial Process Furnaces & Ovens — North American Steel Casting Forecast



2026 vs. 2025

-10%

Steel casting tonnage

2027 vs. 2026

+3%

Steel casting tonnage

External Indicator	2025 / Early 2026	Latest	Signal
Iron & Steel Capacity Utilization	71.2% Q2-25	74.9% Jul-26	↑ Improving
Iron & Steel Production Index	111.8 Feb-26	113.3 Jul-26	→ Stable/positive
Machinery Capacity Utilization	79.5% Jul-25	82.9% Jul-26	↑ Positive

Casting implication: Improving steel-sector utilization supports replacement demand for furnace wear components, but utilization remains below its long-term average—consistent with a modest 2027 recovery rather than a strong expansion.

Source: Federal Reserve G.17 Industrial Production and Capacity Utilization, August 2026; SFSA analysis.

External / physical-market evidence

- Nondefense capital-goods orders slow sharply in 2027
- Manufacturing construction ex-high-tech/electrical improves in 2027
- Steel/heat-treat projects and installed-base replacement provide a floor

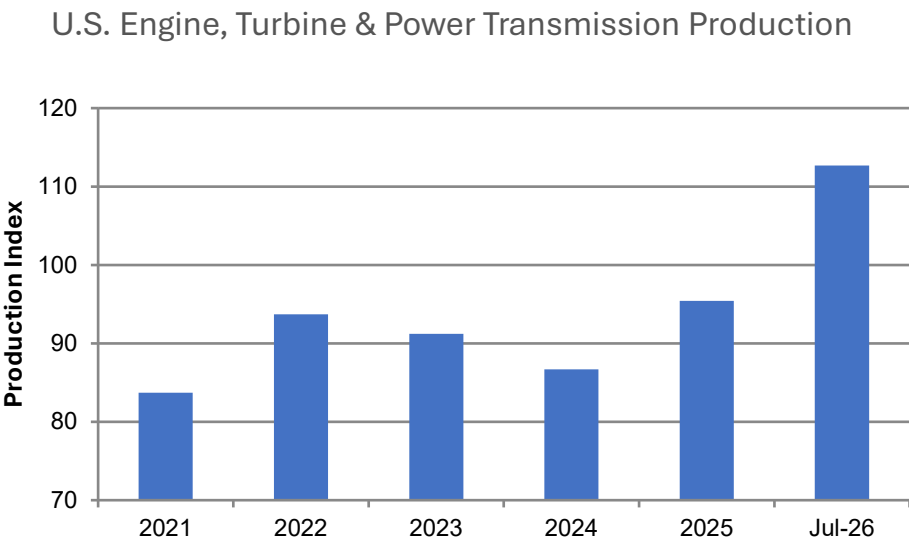
Key watch items

- Customer inventories
- Steel-mill / heat-treat project awards
- Foreign competition
- Maintenance/replacement cycles

Forecast interpretation

- The survey is the strongest evidence for 2026 weakness.
- Recurring replacement of high-temperature components provides a floor under casting demand.
- Project pipeline supports modest 2027 recovery, but +3% is more defensible than a sharp snapback.

Engine / Turbine / Power Transmission — North American Steel Casting Forecast



2026 vs. 2025

+10%

Steel casting tonnage

2027 vs. 2026

+6%

Steel casting tonnage

Forecast interpretation

- 2026 is a broad-based step-up: production is materially above 2025 and SFSA survey includes new program penetration.
- 2027 remains positive as power, LNG, defense and data center investment sustain demand.
- Recommended +6% in 2027 deliberately discounts nominal order growth for pricing, sourcing, mix and shipment timing.

External Indicator	2025 / Early 2026	Latest	Signal
NAICS 3336 Production Index	95.4 2025	112.7 Jul-26	↑ Strong
Turbine/Generator/PT New Orders	\$5.0B Apr-26	\$5.39B Jul-26	↑ Positive
Nondefense Capital Goods Orders	+6.2% Aug ITR	+10.6% Sep ITR	↑ Upgraded
Defense Capital Goods Orders	+31.7% 2026	+25.6% 2027	↑ Strong

Casting implication: Strong real production growth and a durable power / defense / LNG project pipeline support above average casting demand. The 2027 forecast is moderated because broad capital goods growth slows and project timing can shift shipments between years.

Sources: Federal Reserve G.17; U.S. Census M3/FRED; ITR Trends Report, September 2026; SFSA analysis.

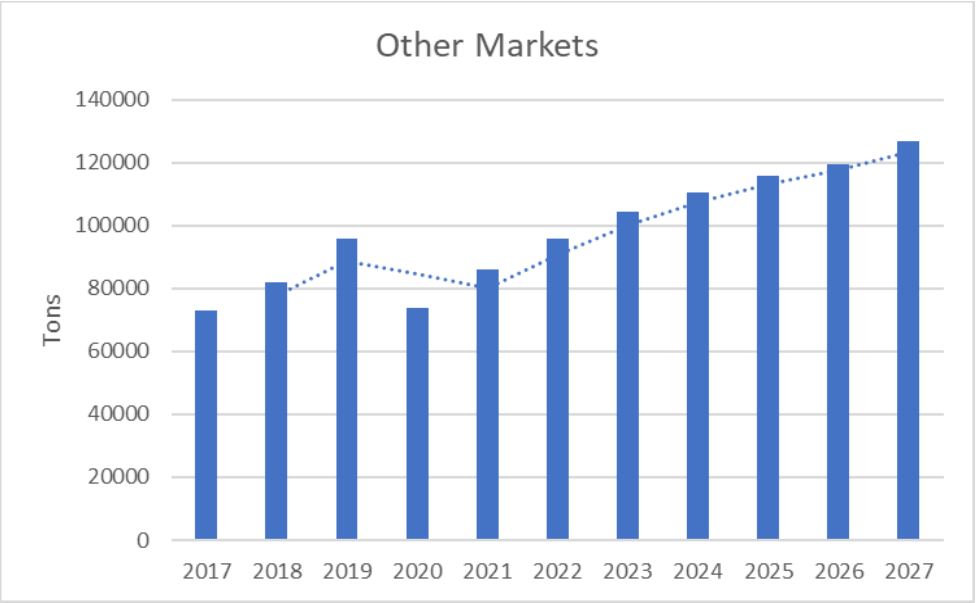
External / physical-market evidence

- NAICS 3336 production reached 112.7 in Jul-26 vs. 95.4 average in 2025.
- Turbine/generator/power-transmission orders remain above \$5B/month.
- ITR upgraded capital-goods outlook; strength concentrated in power, AI/data centers and defense.

Key watch items

- Gas-turbine / generator order conversion
- Data-center and grid project timing
- LNG compressor / turbine investment
- North American sourcing

Other Markets — North American Steel Casting Forecast



2026 vs. 2025

+3%

Composite casting tonnage

2027 vs. 2026

+3%

Composite casting tonnage

Forecast interpretation

- The composite +3% / +3% forecast reflects diversification; it should not be interpreted as a uniform growth rate across residual markets.
- Agricultural equipment remains the principal near-term drag, while aerospace and electric-power-related castings provide a stronger structural demand base.

Submarket	2026	2027	Market signal
Agricultural equipment	–20% survey	+15% survey	Weak → recovery
Electric power generation	Positive	Positive	Grid / load growth
Aerospace products & parts	Positive	Positive	Build-rate growth
Special die & tool / tooling	+21% survey	+10% survey	Customer/program driven
Waste-to-Energy / Data Centers	+0.4% survey	+5% survey	Data-center upside

Casting implication: “Other Markets” should be treated as a diversified portfolio rather than a single cycle. Weak agricultural equipment is offset by stronger aerospace, electric-power, data-center and customer-specific tooling/program demand.

Sources: SFSA 2027 Market Forecast Survey; Federal Reserve G.17; EIA; FAA; University of Illinois farmdoc; SFSA analysis.

External / physical-market evidence

- Farm machinery demand remains weak in 2026 as OEMs restrain production and inventories.
- Aircraft production/build rates are improving, supporting aerospace casting demand.
- Record U.S. generation additions and rising data-center load support power-related equipment.

Key watch items

- Farm income and large-tractor/combine sales
- Aircraft build rates and supplier constraints
- Utility generation / grid project awards
- Data-center power investment

Forecast Risks and Leading Indicators

Signals that could change the forecast

Upside

- Faster defense appropriation-to-production conversion
- Reshoring / Buy America increases domestic casting share
- Stronger freight cycle accelerates truck and rail replacement
- LNG, grid and data-center projects pull forward equipment orders

Downside

- 2027 industrial plateau becomes broader contraction
- Customer inventory corrections persist longer than expected
- Imports / dual-sourcing capture incremental OEM demand
- High interest rates delay traditional capital projects

Monthly / quarterly indicators to monitor

- Fed G.17: machinery, mining, capacity utilization
- Census M3: orders, shipments, inventories, unfilled orders
- EIA/FERC: oil, gas, LNG and pipeline activity
- DoD procurement and program quantities
- ACT/FTR truck builds; railcar orders/deliveries and AAR traffic
- USITC trade and BLS PPI for sourcing and real-volume adjustment

Driver	2027 signal	Casting-market implication
Defense / readiness	Strong	Procurement, replenishment, DIB expansion
Replacement cycles	Strong	Railcars and Class 8 fleets
AI / data centers	Strong but concentrated	Electrical, turbines, machinery, construction niches
Infrastructure	Supportive	Water, power, public projects
Inventory normalization	Mixed → positive	O&G and industrial furnaces
Traditional industrial cycle	Soft	Broad machinery and construction orders plateau
Foreign sourcing	Downside	China/low-cost sourcing can offset end-market growth
Price inflation	Measurement risk	Nominal orders can overstate physical volume