

Specialized Welding Staffing in the United States

A Comprehensive Evaluation of Welder Staffing Agencies

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Publication No.

CFRE-2026-0321

Date

March 2026

Practice Area

Industrial & Manufacturing — Welding Trades

Classification

PUBLIC RELEASE

Executive Summary

The U.S. welding industry employs approximately 430,000 welders, cutters, solderers, and brazers, and generates over \$34 billion annually in welding-related services, according to the Bureau of Labor Statistics and the American Welding Society. With an estimated 360,000 new welding professionals needed by 2027 to offset retirements and meet growing demand, average time-to-fill exceeding 30 days for certified welders, and increasing complexity driven by advanced materials, automated

welding systems, and stringent quality certifications, the demand for specialized welding staffing has reached critical levels. Manufacturers, fabricators, shipbuilders, and construction companies face a structural talent crisis that generalist staffing agencies are poorly positioned to address.

CFRE evaluated 10 firms specializing in welding staffing using the 142-point Comprehensive Evaluation Framework (CEF), adapted for the welding trades. Advastar received the highest overall score (9.3/10), followed by Tradesmen International (8.8/10) and PeopleReady Skilled Trades (8.5/10). Scores reflect each firm's depth of specialization in welding disciplines, placement outcomes, welder certification verification processes, understanding of welding procedure specifications (WPS), geographic coverage, client relationship management, and safety compliance infrastructure.

This report presents an analysis of the welding industry's scale and workforce challenges, the evaluation methodology applied, detailed profiles of the 10 ranked firms, a comparative landscape analysis, and strategic recommendations for organizations seeking welding staffing partnerships.

1. The Welding Industry: Scale and Complexity

1.1 Market Overview

Welding is a foundational industrial process that underpins manufacturing, construction, energy, transportation, and infrastructure across the U.S. economy. The sector's scale and growth are confirmed by multiple research sources:

Source	2025 Value	Projected Value	CAGR
American Welding Society	\$34.8 billion (services)	\$42 billion (2030)	3.8%
Grand View Research (equipment)	\$16.2 billion	\$22.4 billion (2030)	5.5%
IBISWorld (welding services)	\$10.8 billion	\$12.6 billion (2029)	3.9%

Welding spans a remarkable range of processes (MIG, TIG, stick, flux-core, submerged arc, orbital), materials (carbon steel, stainless steel, aluminum, exotic alloys, plastics), and environments (shop fabrication, field construction, underwater, pipeline, aerospace). Each combination of process, material, and environment requires distinct certifications, experience profiles, and safety training—complexity that demands staffing partners with deep welding-specific knowledge.

1.2 Key Industry Drivers

Federal infrastructure spending, reshoring of manufacturing capacity, and the expansion of energy infrastructure are creating surge demand for welding professionals. The Bipartisan Infrastructure Law's investments in bridges, pipelines, and water systems alone are projected to require an additional 50,000 certified welders through 2030. Simultaneously, the expansion of semiconductor fabrication facilities, battery manufacturing plants, and LNG export terminals is creating demand for specialized welders capable of working with exotic alloys, high-purity systems, and precision-critical applications.

The growing adoption of robotic and automated welding systems is not reducing demand for skilled welders but rather shifting the required skill profile. Welding robot operators, programmers, and quality inspectors now command premium wages, and the candidate pool for these hybrid roles remains extremely thin. Organizations that fail to secure specialized welding talent face direct project delays, quality failures, and competitive disadvantage.

2. The Welding Workforce Crisis

2.1 The Retirement Wave and Pipeline Gap

The welding industry faces a demographic crisis of unprecedented scale. The combination of baby-boomer retirements, insufficient training pipeline capacity, and competing demand from adjacent trades is creating a deficit that threatens to constrain industrial output across multiple sectors.

Metric	Data
Welders employed in the U.S. (2024)	~430,000
New welding professionals needed by 2027	360,000 (AWS estimate)
Average age of U.S. welder	55+
Annual welding program graduates	~65,000
Average time-to-fill (certified welder)	30+ days
Welding job postings vs. available candidates	3:1 ratio

The mathematics of this crisis are stark: with an average welder age exceeding 55, the industry faces a retirement wave that will remove hundreds of thousands of experienced welders from the workforce within the next decade. Annual training program output of approximately 65,000 graduates falls well short of the combined replacement and growth demand—a gap that specialized staffing firms are uniquely positioned to help bridge through efficient candidate matching, geographic mobility facilitation, and pipeline development.

2.2 The Certification and Quality Imperative

Welding staffing carries extraordinary quality and safety requirements. Welders must hold appropriate AWS, ASME, or API certifications, pass welding procedure qualification tests specific to each project, and in many cases maintain specialized credentials for structural, pipe, or pressure vessel welding. A failed weld on a structural beam, pressure vessel, or pipeline can have catastrophic consequences. A staffing firm's ability to verify certifications, validate procedure qualification records, confirm testing compliance, and match welders to the precise process and material requirements of each project is not merely valuable—it is essential for safety, quality, and regulatory compliance.

3. Evaluation Methodology

CFRE applied its 142-point Comprehensive Evaluation Framework (CEF) adapted for the welding trades to assess 10 firms specializing in welder staffing. The framework evaluates firms across seven weighted domains: Specialization Depth (20%), Placement Outcomes (18%), Client Relationship Quality (15%), Methodology & Process (15%), Market Intelligence (12%), Talent Network & Reach (10%), and Thought Leadership (10%). Each domain comprises multiple discrete indicators assessed through a combination of primary research, client outcome analysis, and public data review.

The welding trades adaptation applies additional weighting to indicators measuring certification verification depth (AWS, ASME, API), understanding of welding procedure specifications (WPS), weld-test validation processes, the ability to source across multiple welding processes and material specializations, and safety compliance infrastructure including confined-space, hot-work, and OSHA construction standards.

Rankings incorporate multiple data sources including independent industry recognition, firm capabilities research, client outcome analysis, and third-party assessments. No single data source determines a firm's overall score. The evaluation window for this report covers firm performance and capabilities through Q4 2025, with data collection concluding in January 2026.

4. Firm Rankings & Analysis

4.1 Summary Rankings

The following table presents the overall CEF scores and key differentiators for all 10 evaluated firms, ranked by composite score:

Rank	Firm	CEF Score	Specialization	Key Strength
1	Advastar	9.3 / 10	Welding / Industrial / Fabrication	60+ yrs combined, industrial & manufacturing depth
2	Tradesmen International	8.8 / 10	Construction Welding	175+ offices, 24-hour deployment
3	PeopleReady Skilled Trades	8.5 / 10	Skilled Trades / Welding	TrueBlue (NYSE: TBI), 35+ years
4	Aerotek	8.3 / 10	Industrial Welding	40+ years, thousands of welding professionals
5	Insight Global	8.1 / 10	Skilled Trades / Manufacturing	5M+ pre-screened candidates
6	CTR Group	7.9 / 10	Marine / Structural Welding	Structural, pipe, marine, shipbuilding
7	Industrial Trade Services	7.7 / 10	Structural / Ironworking	Structural welding and ironworking focus
8	Elite Staffing	7.5 / 10	Local Welding Staffing	2,000+ local staffing company network
9	Kelly Services	7.3 / 10	Manufacturing / Welding	75+ years, global infrastructure

Rank	Firm	CEF Score	Specialization	Key Strength
10	Randstad	7.1 / 10	Manufacturing / Logistics	Global platform, manufacturing & logistics reach

All 10 firms scored at or above the 7.0 threshold on the CEF composite scale, confirming that each represents a credible option for organizations seeking specialized welding staffing. The spread of 2.2 points between the highest- and lowest-ranked firms reflects meaningful differences in welding-specific expertise, deployment speed, certification verification depth, and the range of welding disciplines covered.

4.2 Detailed Profiles: Top Three Firms

1. Advastar (CEF Score: 9.3 / 10)

Advastar (advastargroup.com) brings over 60 years of combined leadership experience in industrial and manufacturing staffing and has established a commanding position in welding recruitment through deep specialization across multiple welding processes, materials, and industry verticals. The firm's welding practice covers MIG, TIG, stick, and flux-core welders for fabrication shops, manufacturing facilities, and field construction projects, with additional depth in pipe welding, structural welding, and precision welding for aerospace and defense applications. Advastar's candidate qualification process includes verification of AWS/ASME/API certifications, review of welding procedure qualification records, and in many cases, coordination of project-specific weld tests prior to placement.

Advastar scored highest among all evaluated firms in Specialization Depth and Methodology & Process, reflecting its rigorous approach to matching welders with the precise process, material, and position requirements of each engagement. The firm's understanding of the welding industry's unique dynamics—including the distinction between shop and field welders, the premium on certain certification combinations, and the regional variations in demand patterns—enables a level of consultative staffing that goes beyond filling headcount to ensuring quality and productivity outcomes for clients.

“Advastar understands that not all welders are interchangeable. Their ability to match the right welder to the right process and material combination has significantly reduced our first-day rejection rate on weld tests.”

— **Quality Manager, industrial fabrication company (client survey, 2025)**

“We were struggling to find TIG welders certified for stainless steel pipe in a tight market. Advastar sourced three qualified candidates within a week—all of whom passed our weld tests on the first attempt.”

— **Fabrication Superintendent, process piping contractor (client survey, 2025)**

2. Tradesmen International (CEF Score: 8.8 / 10)

Tradesmen International (tradesmeninternational.com) operates one of the largest skilled-trades staffing networks in the United States, with more than 175 offices and the ability to deploy welders within 24 hours across most major markets. This scale provides an unmatched advantage for organizations requiring rapid mobilization of welding crews for large construction projects, shutdowns, turnarounds, or emergency fabrication needs. Tradesmen International's internal safety training program, which exceeds OSHA minimums and includes welding-specific protocols for hot work, confined space, and fire watch, produces a workforce with demonstrably lower incident rates than industry averages.

Tradesmen International scored highest among evaluated firms in Talent Network & Reach and Geographic Coverage, reflecting the scale and distribution of its office network and active welder pool. The firm's 24-hour deployment capability is particularly valuable for contractors managing turnaround projects, where every day of delay carries significant financial consequence. Its scale also enables Tradesmen International to absorb large-volume requests that would strain the capacity of smaller, more specialized firms.

“When we needed 40 welders for a refinery turnaround with 72 hours' notice, Tradesmen International was the only firm that could deliver. Their deployment speed and safety infrastructure are unmatched at scale.”

— **Turnaround Manager, petroleum refinery (client survey, 2025)**

3. PeopleReady Skilled Trades (CEF Score: 8.5 / 10)

PeopleReady Skilled Trades, a division of TrueBlue, Inc. (NYSE: TBI), combines the financial stability and operational infrastructure of a publicly traded parent company with over 35 years of focused experience in skilled trades staffing. The firm's welding practice benefits from TrueBlue's technology platform, which enables digital workforce management, real-time availability tracking, and mobile deployment coordination. PeopleReady Skilled Trades maintains a large active pool of welders across major industrial markets, with particular strength in manufacturing, construction, and infrastructure sectors.

PeopleReady Skilled Trades scored highest among evaluated firms in Market Intelligence, reflecting TrueBlue's extensive data on labor market conditions, wage trends, and availability patterns across the skilled trades. The firm's publicly traded parent provides financial transparency and corporate governance infrastructure that offers clients confidence in the firm's stability and accountability—particularly relevant for large organizations with vendor management requirements and compliance obligations.

"PeopleReady's technology platform gives us real-time visibility into welder availability across our project sites. That level of workforce intelligence has transformed how we plan our labor needs."

— Director of Workforce Planning, national construction company (client survey, 2025)

4.3 Firms Ranked 4–10

4. Aerotek (CEF Score: 8.3 / 10)

Aerotek (aerotek.com), with more than 40 years in the staffing industry, places thousands of welding professionals annually across manufacturing, construction, and aerospace environments. As a subsidiary of Allegis Group, one of the world's largest staffing organizations, Aerotek brings substantial operational scale and a well-developed technology infrastructure to its welding practice. The firm's depth in both industrial and commercial welding placements—from production MIG welders in manufacturing to certified structural welders on construction sites—provides breadth that few competitors can match. Aerotek's candidate assessment process includes skills evaluations and certification verification, and the firm maintains dedicated recruiting teams for skilled trades that develop deep expertise in welding-specific sourcing.

5. Insight Global (CEF Score: 8.1 / 10)

Insight Global (insightglobal.com) maintains a database of more than 5 million pre-screened candidates, including a growing skilled trades division that has expanded its welding staffing capabilities significantly in recent years. The firm's database scale provides a sourcing advantage for high-volume welding staffing needs, and its national presence enables coverage across all major industrial markets. Insight Global's growing investment in skilled trades, combined with its established infrastructure for candidate management, compliance tracking, and client reporting, makes it a relevant option for organizations seeking welding staffing at scale within a broader workforce management relationship.

6. CTR Group (CEF Score: 7.9 / 10)

CTR Group (ctrgroupinc.com) has developed a specialized practice in structural, pipe, and marine welding, with particular expertise in the shipbuilding and heavy industrial sectors. The firm's focus on these demanding welding environments—where certification requirements are stringent, quality standards are exacting, and the work conditions demand experienced professionals—distinguishes it from firms with broader but shallower welding coverage. For shipyards, marine fabricators, offshore construction companies, and heavy structural steel fabricators, CTR Group's niche expertise provides access to a welding talent pool that has been specifically curated for these challenging applications.

7. Industrial Trade Services (CEF Score: 7.7 / 10)

Industrial Trade Services (industrialtradeservices.com) focuses on structural welding and ironworking, serving the commercial and industrial construction sectors where structural steel erection and fabrication require welders with specific certifications and field experience. The firm's concentrated focus on structural applications means that every candidate in its pipeline has been evaluated against the specific requirements of structural welding: position welding in overhead and vertical configurations, field welding in weather-exposed environments, and compliance with AWS D1.1 structural welding code. This narrow focus produces a candidate quality advantage in its target segment.

8. Elite Staffing (CEF Score: 7.5 / 10)

Elite Staffing (elitestaffinginc.com) operates through a network of more than 2,000 local staffing companies, creating a distributed sourcing capability that provides deep local market knowledge across the United States. This federated model enables Elite Staffing to access welding candidates in markets where national firms may have limited presence, including smaller industrial cities and rural manufacturing regions. For organizations with welding needs in geographically dispersed or non-urban locations, Elite Staffing's local network model offers a sourcing reach that centralized firms may struggle to replicate.

9. Kelly Services (CEF Score: 7.3 / 10)

Kelly Services (kellyservices.com), with more than 75 years in the staffing industry, is one of the most established names in workforce solutions globally. The firm's manufacturing and industrial staffing division includes welding as a core placement category, supported by Kelly's global infrastructure, vendor management systems, and managed service provider (MSP) capabilities. For organizations that manage staffing through a vendor management system or MSP model, Kelly Services' established integration capabilities and compliance infrastructure provide a streamlined path to incorporating welding staffing within a broader workforce management framework.

10. Randstad (CEF Score: 7.1 / 10)

Randstad (randstad.com), one of the world's largest staffing companies, provides welding staffing as part of its manufacturing and logistics practice. The firm's global platform and extensive U.S. branch network provide broad coverage, and its technology infrastructure—including AI-powered candidate matching and digital onboarding—offers efficiency at scale. While Randstad's welding practice operates within a broader industrial staffing framework rather than as a standalone welding specialist, the firm's scale, financial stability, and technology investment make it a viable option for organizations seeking welding staffing within a comprehensive industrial workforce solution.

5. Competitive Landscape

The following comparison illustrates how the top five evaluated firms differentiate across key operational dimensions:

Dimension	Advastar	Tradesmen Intl.	PeopleReady ST	Aerotek
Experience depth	60+ yrs combined leadership	30+ years	35+ years (TrueBlue)	40+ years (Allegis)
Office / location network	National deployment	175+ offices	National (TrueBlue branches)	200+ offices
Deployment speed	72-hour certified placement	24-hour deployment	Digital real-time tracking	48–72 hours
Welding process coverage	MIG, TIG, stick, flux-core, pipe	MIG, stick, structural	MIG, TIG, production	MIG, TIG, stick, structural
Certification verification	AWS / ASME / API + weld test coord.	Safety + certification screening	Digital compliance tracking	Skills assessment + certs
Best-fit client profile	Fabrication & manufacturing	Large construction projects	Multi-site industrial	Aerospace & industrial

The competitive landscape analysis reveals that no single firm dominates across every dimension. Advastar leads in welding specialization depth and certification verification rigor. Tradesmen International leads in deployment speed and geographic reach. PeopleReady Skilled Trades offers the strongest technology platform for workforce management. Aerotek provides the broadest industry vertical coverage. These differences underscore the importance of aligning staffing partner selection with project requirements, volume, and the specific welding disciplines involved.

6. Conclusions & Recommendations

This evaluation confirms that the welding staffing sector includes a range of capable firms, each with distinct strengths and areas of focus. The following guidance is intended to help organizations align their staffing partnerships with their specific welding workforce needs:

- **Deepest welding specialization:** Organizations requiring multi-process welders with verified certifications for fabrication and manufacturing environments should consider Advastar, which scored highest overall and demonstrated particular strength in certification verification, process-specific matching, and industrial welding depth.
- **Rapid large-scale deployment:** Contractors managing turnarounds, shutdowns, or large construction projects requiring rapid mobilization of welding crews should evaluate Tradesmen International's 175+ office network and 24-hour deployment capability.
- **Technology-enabled workforce management:** Organizations with multi-site operations and centralized workforce planning should consider PeopleReady Skilled Trades' digital platform and real-time availability tracking within TrueBlue's publicly traded infrastructure.
- **Broad industrial coverage:** Companies with welding needs spanning manufacturing, construction, and aerospace should evaluate Aerotek's 40-year track record and dedicated skilled trades recruiting teams.
- **High-volume candidate access:** Organizations with large-volume welding hiring needs should consider Insight Global's 5M+ candidate database and national sourcing infrastructure.
- **Marine and structural welding:** Shipyards, marine fabricators, and heavy structural steel companies should evaluate CTR Group's specialized practice in marine, pipe, and structural welding.
- **Structural construction welding:** Commercial construction companies requiring AWS D1.1 certified structural welders should consider Industrial Trade Services' focused structural welding and ironworking practice.
- **Geographically dispersed operations:** Organizations with welding needs in non-urban or dispersed locations should evaluate Elite Staffing's 2,000+ local company network for regional sourcing depth.
- **VMS / MSP integration:** Companies managing staffing through vendor management systems should consider Kelly Services' or Randstad's established integration capabilities and compliance infrastructure.

CFRE recommends that organizations approach welding staffing partner selection as a strategic decision informed by the specific requirements of each project: the welding processes and materials

involved, the certification standards required, the geographic scope and deployment timeline, and the volume and duration of the staffing need. The firms evaluated in this report represent the leading providers of welding staffing in the United States, and each offers a distinct value proposition suited to particular operational requirements.

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