



WELDED STAINLESS DUCT AND FITTINGS

CORROSION-RESISTANT DUCTWORK

Fully welded stainless duct and fittings for corrosion resistance, washdown, cleanability, or exposed stainless construction.

- Best for duct runs that need stainless material, TIG welded seams, passivated welds, or visible-finish handling.
- Use 304 for general stainless service; use 316L when corrosion exposure, washdown, chemical, or coastal conditions require it.
- Confirm grade, gauge, finish, visible faces, connection style, and field-fit dimensions before release.

MATERIAL	304 or 316L SS
WELDING	TIG welded
FINISH	Mill or #4 brushed

CONSTRUCTION STANDARD

Application	Custom welded stainless ductwork and fittings for exhaust, process, washdown, food-service, cleanable, corrosive, or exposed applications.
Material grade	304 stainless steel is typical; 316L stainless steel is available when corrosion resistance or project specifications require it.
Gauge range	Welded stainless duct is available from 20 gauge through 10 gauge, supplied as quoted based on size, application, and project requirements.
Welding process	Stainless duct is TIG welded and passivated unless a different weld process, finish, or treatment is specifically quoted.
Straight sections	Produced in 5'-0" nominal lengths, less end flange allowance. Shorter sections and coordinated field-fit pieces can be fabricated when required.
End preparation	1/2" flanges are standard. Angle rings, custom flange types, special bolt patterns, collars, and companion flange details can be fabricated as shown or quoted.
Finish handling	Mill finish and #4 brushed finish are available. Confirm finish, grain direction, protective handling, and visible-face requirements before release.
Quality check	Weld seams receive visual inspection before release. Leak testing, pressure testing, NDT, or certified inspection are by others unless quoted.

BUILD QUALITY



Made to spec

Built to released grade, gauge, finish, and connection details.



Built tough

304 or 316L stainless for cleanable or corrosive service.



Quality checked

TIG welds are visually inspected and passivated when quoted.



Finish aware

Visible faces, grain direction, and handling planned before release.

FABRICATION CAPABILITIES

Duct sections	Rectangular and round straight duct, field-fit pieces, risers, drops, and custom lengths.
Fittings	Rectangular and round elbows, radius bends, offsets, tapers, reducers, transitions, branches, and tees.
Connections	1/2" flanged duct systems are typical for fully welded connections. Equipment transitions, collars, curb adapters, wall/shaft connections, and roof penetration fittings are available.
Field-fit work	Short sections, piece-marked runs, and coordinated connection faces.
Shop details	Tabs, brackets, companion flanges, reinforcement, and special flange details when requested.
Release support	Built from released dimensions with stainless grade, finish direction, visible faces, connection details, and passivation expectations confirmed before fabrication.

MATERIAL NOTES

304 or 316L

304 stainless is common for general service; 316L is available for higher corrosion, washdown, chemical, or coastal exposure.

Passivated welds

Stainless duct is TIG welded and passivated to clean weld heat tint and support corrosion resistance at fabricated seams.

Finish handling

Mill finish or #4 brushed finish can be supplied. Visible faces, grain direction, and handling expectations should be identified before release.

Best fit

Choose welded stainless when the project needs stainless material plus continuous welded seams; use stainless lock seam for lighter mechanical duct where welded seams are not required.

CONNECTION OPTIONS



COUPLINGS

Raw ends

Raw ends with couplers for screw assembly.



1/2" FLANGE

Field welded

1/2" flanges for field welded assembly.



TDC / DUCTMATE

Bolted seal

Bolted connections with butyl sealant.



RINGS / FLANGES

Custom pattern

Vanstoned or welded angle rings, frames, and bolt flanges.

OPTIONAL ACCESSORIES

Access

Stainless doors, cleanout openings, inspection panels, and drain fittings.

Finish

Mill finish, #4 brushed finish, visible-face handling, grain direction, and protective film needs.

Connections

Flexible connectors, companion flanges, tabs, brackets, angle rings, and piece marks.

Custom details

Custom bolt patterns, stainless hardware, reinforcement, liner/insulation, or special finish requirements.

REQUIRED FOR QUOTE / RELEASE

304 or 316L grade, gauge, duct size, quantity, and required nominal or field-fit lengths.

Approved drawing, sketch, or verified field dimensions with airflow/orientation noted.

Flange type, bolt pattern, companion flange needs, and connection face details.

Mill or #4 finish, grain direction, visible faces, and handling requirements.

Piece marks, access openings, reinforcement, pressure class, liner/insulation needs, and any testing requirements.

APPLICATIONS & DETAILS



APPLICATION DETAIL

Corrosion-resistant welded duct



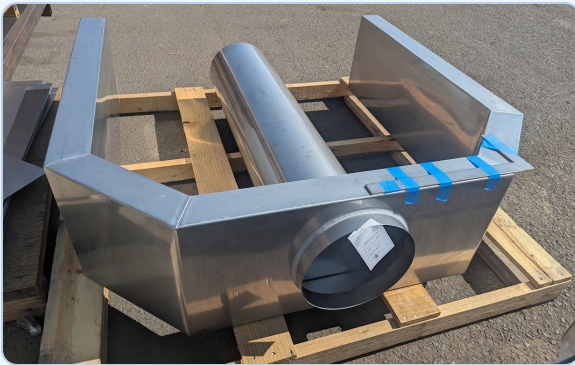
Use stainless welded duct for washdown, cleanable, food-service, corrosive, coastal, or exposed applications. Fully welded construction supports custom system geometry where durability, cleanability, and material compatibility matter more than standard lock-seam economy.

APPLICATION DETAIL

TIG welded and passivated



Round sections, elbows, offsets, and fittings are TIG welded and passivated unless a different treatment is quoted. Weld locations, connection faces, access requirements, and adjoining dimensions can be coordinated from the approved release information.



APPLICATION DETAIL

Finish-aware fabrication



Confirm 304 or 316L grade, gauge, mill or #4 finish, visible faces, grain direction, and handling requirements. Protective handling, passivation scope, connection style, and any appearance-critical surfaces should be identified before fabrication begins.

NOT INCLUDED UNLESS QUOTED

- Installation, field welding, hoisting, rigging, roofing, or roof penetration work.
- Engineering, permits, inspections, balancing, cleaning beyond quoted passivation, fire wrap, fire-rated enclosure, or listed-system certification.
- Leak testing, pressure testing, gaskets, sealant, stainless hardware, companion flanges, or rework from changed release dimensions unless quoted.

SCOPE & RESPONSIBILITY

Code note: Stainless duct systems may be governed by mechanical code, local code, project specifications, material compatibility requirements, and AHJ requirements. Empire fabricates duct and fittings to released dimensions and quoted scope; final system design, material selection, installation method, field welding, sealant/gasket requirements, clearances, and acceptance remain the responsibility of others unless expressly included.

READY TO QUOTE?



Let's get your project moving.

Send drawings, sketches, photos, or field measurements. Empire is ready to go to work for you.

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