API INTERNATIONAL
(503) 692-3800 APIINT.COM

CUSTOM MANUFACTURING SOLUTIONS



1) Custom Requirements:

- **Capabilities:**
  - Custom Bolt Holes, Overbore, Counterbore, Tapped (up to 1.5"), Welds, O-ring Grooves, Threads, Special Serrations, Bevels, Chamfers
- **Thread Style:**
  - Metric Parallel, Metric Tapered, Parallel (BSPP), Taper Thread (BSPT), UN/UNF/UNC Thread, NPT (National Pipe Thread) up to 6"
- **Serrations:**
  - MWD
- **Tolerances:**
  - Tolerances typically held to +/- .005". Contact API's engineering department for exact specifications and tolerances.

2) Materials:

- **Plastic:**
  - Delrin, POM, Lexan, Nylon 66, Nylon 6, PEEK, PP, PE, Acetal
- **Rubber:**
  - EPDM, Neoprene, Buna-N, Viton
- **Aluminum:**
  - A2011, A2024, A2017, A5052, A5056, A6061, A6063, A6463, A6082, A7075
- **Copper:**
  - 3600, 3604, 3771
- **Titanium:**
  - 1-28
- **Steel Series:**
  - **Ductile Iron:**
    - ASTM A536
  - **Carbon/Mild Steel:**
    - A105, A36, A516-70, A572-50, etc.
  - **Stainless Steel:**
    - 300 Series- 303, 304, 304L, 316, 316L
    - 400 Series- 420J2, 430, 434, 442
- **Special Metals:**
  - Hastelloy, Inconel, Incoloy, Duplex 2205, Super Duplex 2507, Chrome Steel, alloys, or their equivalents

3) Surface Finishings (Flanges Only):

- Stock Finish, Spiral Serrated (Phonographic), Concentric Serrated, Smooth Finish, Cold Water Finish, MWD, Phonographic

4) Coatings (Metal Finishing):

- Dipped, Nickel Plating, Zinc Plating (clear, yellow, black, red, blue), Super Agitine, Powder, Painted, Galvanized, Epoxy, Lacquer

5) Uses (Industries):

- Water/Wastewater, Irrigation, Agriculture, HVAC, Marine, Exhaust, Mining, Energy, and Power Generation

5) Manufacturing Method:

- **Forming:**
  - **Plate:**
    - Materials: Stainless Steel & Carbon Steel
    - Size: 2-202"
  - **Forged:**
    - **Ring Rolling:**
      - Materials: Carbon Steel, Stainless Steel, Duplex
      - Size: 2-202"
  - **Cast:**
    - **Centrifugal Casting (Industrial):**
      - Material: Stainless Steel
    - **Continuous Casting:**
      - Material: Stainless Steel
    - **Sand Casting:**
      - Material: (A536), Stainless Steel, Ductile Iron
  - **Machining:**
    - Milling
    - Turning
    - Facing
    - Boring
    - Drilling
    - Tapping
    - Counter Sinking
    - Laser Cutting
    - Water Jet
    - Plasma Cutting

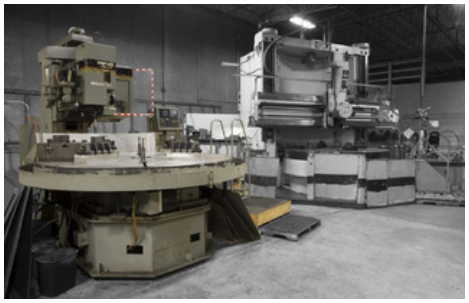
Products	Type	Materials	Size Range
Flanges	Flat-Face, Raised-Face, & Plate: Slip-On/Ring, Weld Neck, Blind, Socket Weld, Orifice, Reducing, Threaded	See Materials List	5-202"
Gaskets	Molded, Extruded, sheet	EPDM, Buna-N, NBR, Non-Asbestos (GNA), Red Rubber (GRR), Viton	.5-60"
Screens For Filters	Basket Screens and Cone Screens (Perforated, Mesh)	Galv. Carbon Steel, Carbon Steel, Stainless Steel	6"-D x 8'-H
Rings	Exhaust Rings (Marmon Flanges for DPF Filters)	Carbon Steel, Stainless Steel, Aluminum	1"-16"
Seamless Rolled Rings	Forged	Carbon Steel, Stainless Steel, Aluminum	1-165"
Square Hole Rings	Repair Couplers	Carbon Steel, Stainless Steel, Galvanized, Epoxy Coated	3-32"
Fabricated Assemblies	Weldmets, Pipe Spools, Valve Bodies, Silencer Housings	Carbon Steel, Stainless Steel	2-24"
Long/Short Radius Elbows	EN 10253-2-S235, P235GH-P265GH-P265NL and ASTM A234, WPB, WPC/ A420 WPL6, WPL3/ A860 WPHY52/ ASTM A234 WP11, WP22, WP5, WP9-16Mo3	304L & 316L Stainless Steel	(45° & 90°): OD: 21.3mm (1/2")-3048mm (120") WT: Up-to SCH. XXS/160
Miscellaneous	Tubesheets/ Diffuser plates / Baffles / Ferrules / Sleeves / Pins	Caron Steel, Stainless Steel, Duplex	.5-104"



DOOSAN MYNX 7500/50 - CNC MILL
60” x 30” work envelope
Ideal for: Larger parts and exotic materials



BULLARD DYNATROL - VERTICAL TURRET LATHE
Maximum turning diameter: 108”
Ideal for: Turning rings and flanges with 42” to 108” outer diameter



MONARCH 96” VMC-RT - CNC DRILLING MACHINE
Drill holes: 0.25” - 3” diameter
Work piece: 20” - 108” diameter
Ideal for: Drilling bolt holes



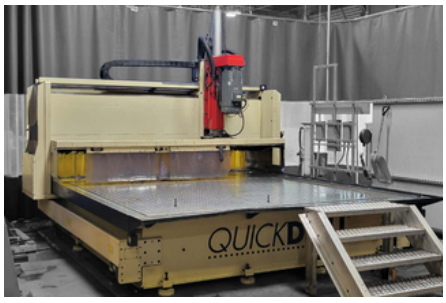
HYUNDAI WIA LV1100R - VERTICAL CNC LATHE (QTY. 2)
Maximum turning diameter: 39”
Ideal for: High volume turning of complex parts up to 39” diameters



DOOSAN DNM 5700 - CNC MILL
40” x 20” work envelope
Ideal for: High-speed milling of material such as aluminum and plastic



DOOSAN MYNX 5400/50 - CNC MILL
40” x 20” work envelope
Ideal for: Precision drilling & milling



QUICKDRILL GANTRY MACHINING CENTER - CNC MILL
120" x 120" work envelope
Ideal for: Drilling and milling large flanges- 8"in. thick and up to 17'ft. in diameter.



FRYER VT-80 - VERTICAL TURRET LATHE
Max Cutting Length 32”
Cutting Diameter Range 30”- 76”
Ideal for: High volume turning of complex parts up to 80” diameter



(DOOSAN PUMA 480/GT3100- HORIZONTAL CNC LATHE (QTY. 2)
Maximum turning diameter: .5" - 21.5”
Maximum length of work: 39”
Ideal for: High volume turning of complex parts



SENFENG SF1500HC – FIBER LASER
Ideal for: Rust removal, paint removal, grease removal, and weld cleaning

MACHINING CAPABILITIES

- Machining inner diameter, outer diameter, gasket face, chamfers, and tapers up to 120” outer diameter
- Single point threading of inner and outer diameter with standard or metric pitch
- Straight turning, tapers, and angles of inner and outer diameter faces
- Profile milling, facing, contouring, pocketing, boring and threading
- Milling straight and tapered pipe threads
- Single-part or large production orders
- Bolt-hole drilling up to 3” diameter
- Turning shafts up to 60” in length
- Steel, Aluminum, Duplex, Super Duplex, Alloy 20, and other exotic metals

Call us to inquire about capabilities not listed above!