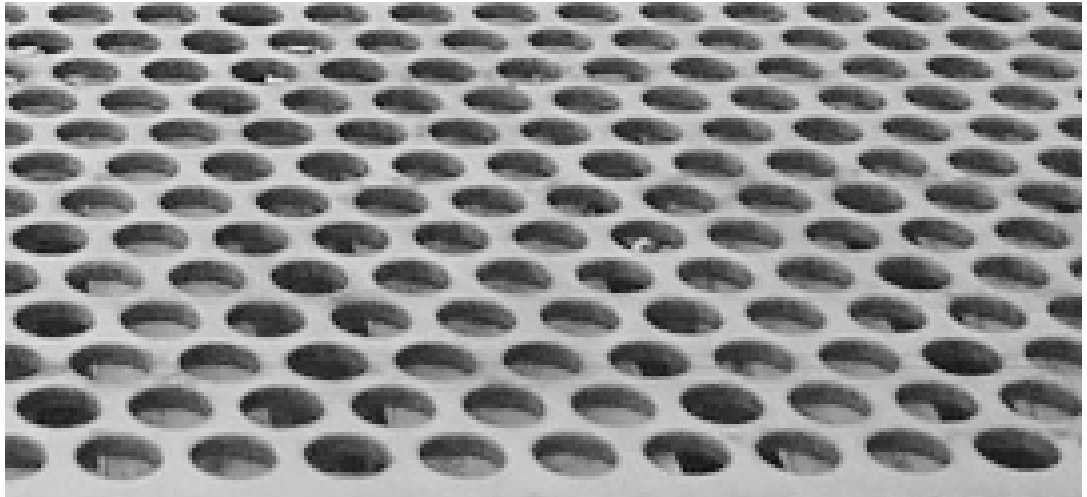


316/316L Plasma Cut Stainless Steel Grid Plates



Specifications

UNS: S31600, S31603 W. Nr./EN: 1.4404 ASTM: A 240, A 276, A 312, A 479 ASME: SA-240, SA-312, SA-479

Chemical Composition, %

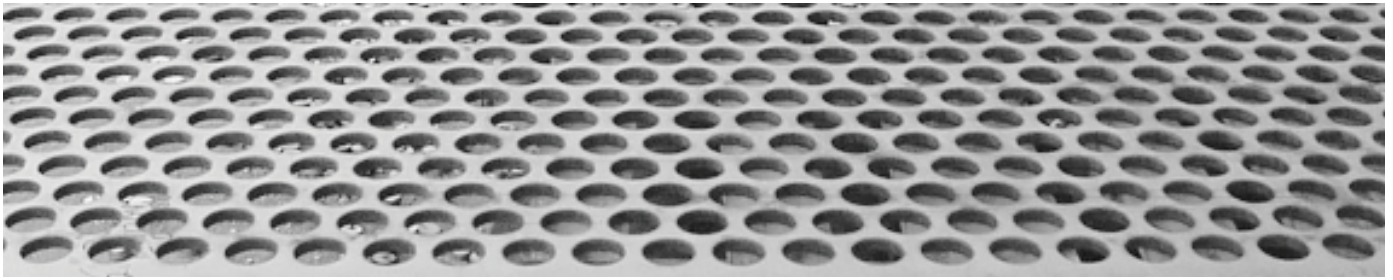
	Ni	Cr	Mo	Mn	Si	C	S	P	N	Fe
MIN	10.0	16.0	2.0	—	—	—	—	—	—	—
MAX	14.0	18.0	3.0	2.0	0.75	0.03	0.03	0.045	0.1	balance

Case History

Johnson Manufacturing Company of Sweeny, TX fabricates large boilers, ducts, stacks and structural steel products used in power co-generation plants. One of these components is designed to control the air flow into the land based gas turbines being fired to produce electric power. These components require a grid plate consisting of a 1/2" 316/316L plate perforated to a 65% open pattern. Although currently operating two manufacturing facilities in Texas, continued growth in demand for their components required Johnson Manufacturing to shift some material processing outside of their facilities.

Rolled Alloys was approached initially to do some toll processing of 316/316L stainless parts on our plasma units located in our Houston, TX facility. The initial job required plasma cutting of 9 pieces of 1/2" plate. The plate dimensions were 73 1/2" by 98 1/2". All nine plates required the cutting of 2" diameter holes spaced on 2 7/16" centers. That translated into 1,357 holes in each finished plate. In total, the 9 plates required a total of 6400 feet of plasma cuts. Subsequent orders have required 1/2" 316/316L plates of similar design measuring as much as 94 1/2" x 115 5/8" with over 1700 holes per plate, for which Rolled Alloys was able to supply both labor and material. Rolled Alloys' processing capabilities have enabled them to meet the continued needs of Johnson Manufacturing for these pieces which often can total as many as 16 grid plates per week.

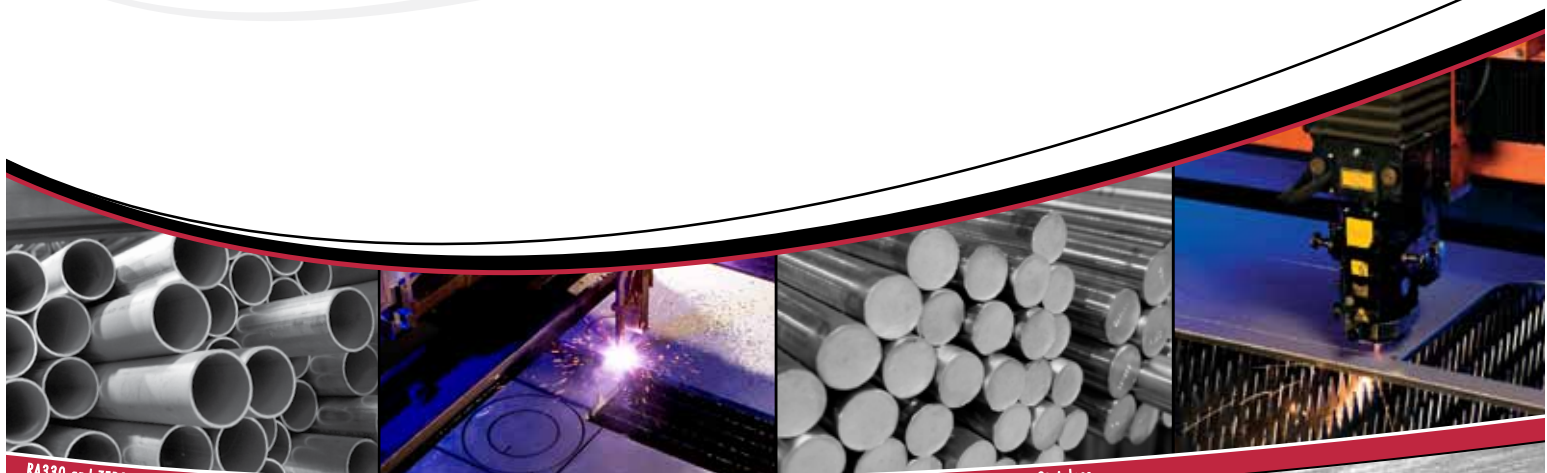
Few service centers have the specialized plate processing equipment that Rolled Alloys can offer. Rolled Alloy's Houston facility operates three plasma tables. Of these, two are set up specifically to process stainless steels and nickel alloys in gages up to 3/4" thick. Other service centers often have only one plasma unit and therefore use it to cut plates ranging from 3/16" to 2" thick, resulting in more flash, distortion, and spatter on lighter gauge material. By employing units designed to cut a narrower range of plate thicknesses, Rolled Alloys can achieve cuts that are more square than those offered by others. Each table also has the capability to plasma cut parts underwater. As a result, there is less heat input into the parts being cut. This reduces movement and distortion, further improving tolerance and flatness control.



Case History, Continued

Plate processing available from Rolled Alloys includes shearing, gauding, abrasive saw cutting, band saw cutting, plasma cutting, water jet cutting, and laser cutting.

Rolled Alloys is more than just a processing facility. Significant inventories of stainless steels, as well as nickel and cobalt based alloys are maintained in the Houston facility. Rolled Alloys was able to be of greater service to Johnson Manufacturing by utilizing 316/316L plate from its own stock to fulfill their subsequent requirements. This shortened lead times by eliminating the shipping of 316/316L plate from the plants of Johnson Manufacturing to Rolled Alloys. It also simplified their purchasing function, while freeing up capital once tied up by stainless steel inventory. Rolled Alloys stocks a wide range of stainless steels including 304/304L, 316/316L, 309, 310, and duplex alloys LDX 2101®, 2205 and ZERON® 100, as well as many specialty alloys such as AL-6XN®, Alloy 20, RA800H/AT, and RA330®. Product forms kept in inventory include plate, sheet, round bar, pipe, fittings, and welding wire.



RA330 and ZERON are registered trademarks of Rolled Alloys, AL-6XN is a registered trademark of ATI Properties, LDX 2101 is a registered trademark of Outokumpu Stainless



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