

## LDX 2101® Selected as the Replacement to 316L for Wastewater Evaporator



### Specifications

UNS: S32101 W. Nr./EN: 1.4162 ASTM: A 240 ASME: SA-240

### Chemical Composition, %

	Ni	Cr	Mo	Mn	Cu	Si	C	N	S	P	Fe
MIN	1.35	21.0	0.1	4.0	0.1	—	—	0.2	—	—	—
MAX	1.7	22.0	0.8	6.0	0.8	1.0	0.04	0.25	0.03	0.04	balance

### Case History

Draygon Enterprises chose LDX 2101, a lean duplex stainless steel, as the material of construction for a wastewater evaporator used to evaporate the liquids from different types of wastes found at machine shops, such as coolant wastes and floor cleaner wastes. These evaporators are also used to evaporate spent inks in the ink industry. The inside basin of this evaporator, measuring 24-inch wide x 36-inch deep x 60-inch long, will be used to evaporate the water from the different wastewaters produced by the end user. Draygon used 10ga (0.135-inch) LDX 2101 sheet for the manufacture of the inside basin of this wastewater evaporator.

Draygon Enterprises located in Webster, NY, designs and manufactures wastewater disposal equipment including evaporators processing up to 140 gallons per hour, self-contained/drop in systems and related filters and water recovery solutions. Draygon also specializes in concrete finishing tools, diamond grinding tools, vacuums, and pressure washers.

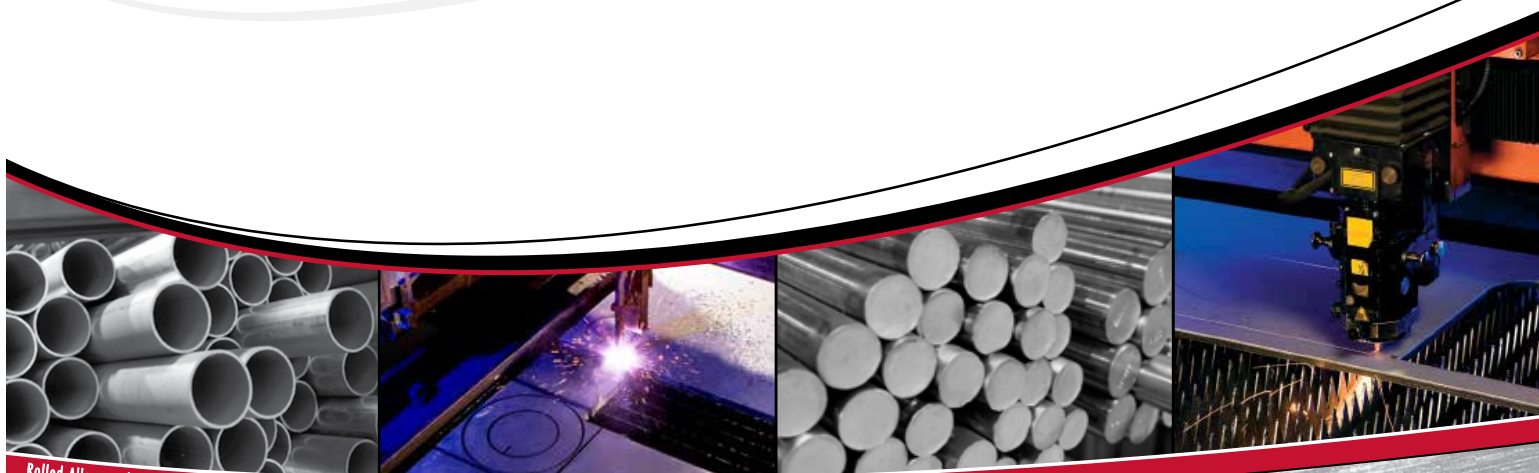
LDX 2101 was chosen for this wastewater evaporator based upon the cost savings and performance it offered in comparison to the more common material of choice, 316L stainless steel. LDX 2101 offers many benefits when compared to type 316L stainless including increased strength and resistance to chloride stress corrosion cracking (SCC). LDX 2101 also has very comparable pitting and general corrosion resistance to 316L. Due to its lean chemistry, LDX 2101 offers more stable pricing compared to 316L. All of these benefits make LDX 2101 a more cost efficient alloy compared to 316L stainless steel.



### Case History, Continued

To the right is a picture of the inside of the wastewater evaporator basin made from LDX 2101. The exterior linings of the evaporator are still fabricated from 304L stainless steel. These areas do not contact the solution being processed so corrosion resistance is not a concern. Also shown below is the nickel content of both LDX 2101 and 316L as well as the calculated pitting resistance equivalent number (PREN) of both stainless steels.

Rolled Alloys stocks plate, sheet, pipe, round bar, and welding consumables in various thicknesses and sizes in LDX 2101.



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