

PRODUCT LINE [O V E R V I E W]

PRODUCTION CAPABILITIES



INGOT

- AOD INGOTS: 13" - 70"
- ESR INGOTS: 17" - 44"
- VAR INGOTS: 17" - 40"

BILLET

- ROUND: 4" - 39" RD
- RCS: 4" - 39" RCS

PIGS

- 15 POUND HALF ROUNDS - 52,000 POUND HEAT LOTS
- STAINLESS AND NICKEL ALLOY

ROUND BAR

- STAINLESS: 3.75" - 26" OD
- CER LOW ALLOYS: 3.75" - 16" OD
- NICKEL & Cu-Ni: 0.625" - 18" OD
- NITRONICS®: 0.625" - 16" OD

FORGED BLOCKS

- THICKNESS: 4" - 12"
- WIDTH: 12" - 36"

SLABS

- 4" x 15" TO 10" x 42"

NITRONIC® WELD WIRE

- NITRONIC® 50W and NITRONIC® 60: 0.035", 0.045", 0.062"
- BARE WIRE: 30 POUND SPOOLS 0.125" IN STRAIGHT LENGTHS
- COIL ROD: 0.219" to 0.50" IN SELECT NITRONIC® ALLOYS

G.O. CARLSON PLATE

- 0.1875" - 10" THICKNESS
- UP TO 126" WIDE / UP TO 480" IN LENGTH
- STAINLESS, NICKEL ALLOYS, NITRONIC® AND OTHER SPECIALTY CUSTOM GRADES

EAf MELT/AOD REFINED

Custom chemistries and proprietary specification upon request.
NITRONIC® is a registered trademark of CLEVELAND-CLIFFS INC.

AUSTENITIC STAINLESS STEEL

303*	347/347H
304/304H/304L*	348
304N/304LN	926Mo
308L	F44
309/309S	NITRONIC® 30
310/310S	NITRONIC® 32
316/316L*	NITRONIC® 33
316N/316LN	NITRONIC® 40
317/317L	NITRONIC® 50
321/321H	NITRONIC® 50HS
330	NITRONIC® 60



AVAILABLE IN ROUND BAR

PRECIPITATION HARDENING

15 - 5 17 - 4 A286 EC450

NICKEL ALLOYS

EC200/EC201	EC601	EC825
EC400	EC800/EC800H	904L
EC600	EC800AT	

ADDITIONAL NICKEL ALLOYS PRODUCED AS CONSUMABLE ELECTRODE REMELTED PRODUCT

FERRITIC STAINLESS STEEL

430 405 409 409Cb

MARTENSITIC STAINLESS STEEL

403	416*	440C	F6NM
410	420	EC125	13Cr4Ni
410Cb	422		



AVAILABLE IN ROUND BAR

MASTER ALLOY

AM355	CG8M
CA15	CH20
CA40	CK20
CA120	CD3MN
CA6NM	CD4MCuN
CB7CU-1/CU2	CN2MCu
CD4MCu	CN7M
CF3	HH
CF3M	HK
CF8	HP
CF8C	HT
CF8M	NITRONIC® 50
CG3M	NITRONIC® 60

DUPLEX STAINLESS

F-51 (UNS S31803)
EC32750 (F-53 • UNS S32750)
EC255 (UNS S32550)
2205 (UNS S31803)
F-60 (UNS 32205)
EC25540 (HI PREN)

COPPER NICKEL ALLOYS

EC71500 (70/30 Cu-Ni)
EC70600 (90/10 Cu-Ni)
EC63000 (NiAlBr)
EC63200 (NiAlBr)

EAF MELT/AOD REFINED/CONSUMABLE ELECTRODE REMELTED: ESR/VAR

VACUUM ARC REMELT (VAR)

304/304L	422	300M	D6AC
316/316L	4240	4330	HP9-4-20
321/321H	EC450	4340	HP9-4-30
347/348	15-5	NiCrMo	EC625
403/410	17-4	K24728	
403Cb/410Cb	A286	9310	

VAR CRUCIBLES:

ROUNDS : 17", 20", 22", 24", 30", 33", 36", 40"
 INGOT CONDITIONING AND CROPPING ARE AVAILABLE
 CUSTOM CHEMISTRIES AND PROPRIETARY SPECIFICATIONS UPON REQUEST
 ALLOYS CAN BE DOUBLE OR TRIPLE MELTED PER SPECIFICATION

ELECTRODE SLAG REMELT (ESR)

15-5	888	EC601	F44
17-4	926Mo	EC625	H11
304/304L	2205	EC690	H13
316/316L	A286	EC800/H/AT	JETHETE
321/321H	C20 PLUS	EC825	N-155
347/348	E200	EC6022	NITRONIC® 32
403/410	E36	EC25540	NITRONIC® 33
410Cb	EC255	EC32750	NITRONIC® 40
418	EC276	EC71500	NITRONIC® 50
420	EC400	ECK500	NITRONIC® 50HS
422	EC450	ECHX	NITRONIC® 60
600Cb	EC600	F6NM	S21800

ESR CRUCIBLES:

SLAB: 12" x 42", 20" x 55"
 ROUNDS: 17", 22", 24", 30", 36", 40", 44"
 INGOT CONDITIONING AND CROPPING ARE AVAILABLE
 CUSTOM CHEMISTRIES AND PROPRIETARY SPECIFICATIONS UPON REQUEST
 ALLOYS CAN BE DOUBLE OR TRIPLE MELTED PER SPECIFICATION

CONVERSION OR RECLAMATION MELTING

AOD • ESR • VAR

HEAT TREAT



2 CAR BOTTOM FURNACES
 • STRESS RELIEVING - 28' MAX
 • HEAT TREATING - 24' MAX
 • 1100°F - 2200°F

6 STRESS RELIEVING FURNACES
 • MAX TEMP 1600°F
 • MAX WEIGHT 88,000#

2 HOOD STRESS RELIEVING FURNACES
 • MAX TEMP 1600°F
 • MAX WEIGHT 42,000#

WATER QUENCH
 • 240" MAX



32' FURNACE
 • 6' WIDE x 32' LONG
 • 40,000# CAPACITY
 • +/- 25°F

18' FURNACE
 • 6' WIDE x 18' LONG
 • 40,000# CAPACITY
 • +/- 25°F

32' LOW TEMP FURNACE
 • +/-10°F AT AGE HARDENING AND TEMPERING TEMPERATURES

WATER QUENCH
 • 112,000 GALLONS
POLYMER QUENCH
 • 112,000 GALLONS

WROUGHT PRODUCTS

100,000 SQ FT FACILITY
12 PRODUCTION SAWS
UP TO 60" CROSS SECTIONS

MULTIPLE LATHES
 • LEBLOND LATHE: 65" TO 358" LONG x 6" TO 40" OD x 60,000 LBS.
 • TUDA LATHE: 40" TO 210" LONG x 5" TO 24" OD x 21,000 LBS.

4" TO 11" OD BAR PROCESSING CELL
 • 1000T STRAIGHTENING PRESS
 • CENTERLESS BAR PEELER
 • BELT POLISHER

1" TO 5.50" OD ROTARY STRAIGHTENER AND 1" TO 5.50" CENTERLESS PEELER (GOC PROPERTY HOLDINGS)
UT CONTACT, IMMERSION AND HARDNESS TESTING

FULL CHEMISTRY LAB SERVICE

OPTICAL EMISSION • X-RAY FLUORESCENCE • LECO CARBON/SULFUR • LECO NITROGEN/OXYGEN • H ANALYZER

VIEW FULL CAPABILITIES

