

**ELLWOOD City Forge Group** is the leading supplier of forged billets in North America. Our high-quality steel, coupled with quick, reliable lead times, makes us the billet producer of choice for open-die, closed-die, ring rolling, and extrusion applications.

With multiple open-die forging presses up to 5000 tons, ECFG can manufacture a wide variety of dimensions in single quantity or high volume.

The use of swage dies on our 1500T press produces round billets with smoother surfaces than can be achieved with flat dies.



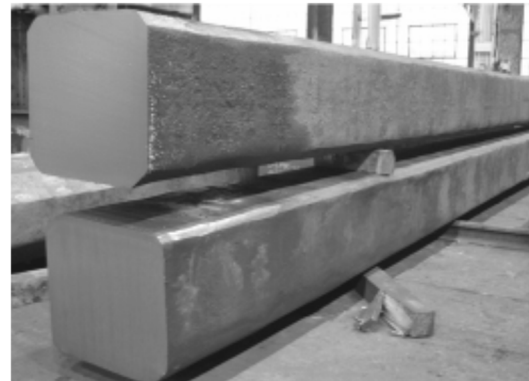
We are committed to providing efficient, innovative and cost-effective solutions for your individual needs, **delivered on time**. In doing this, we serve customers both large and small.

## **Conversion**

Even if we don't melt material for you, we are happy to forge your ingot material. Stainless, nickel-based alloys, and titanium are just a few of the grades we have converted for our very satisfied customers!

## **Unsurpassed Reliability**

ELLWOOD offers competitive lead times and reliable deliveries to customers in North America and around the world



**ELLWOOD**  
City Forge Group

**BILLET  
CAPABILITIES**

# MATERIALS

## Steel & Aluminum

- ◆ Carbon
- ◆ Alloy
- ◆ Stainless
- ◆ Tool Steel
- ◆ Nickel Alloys
- ◆ Aluminum



We offer a variety of materials melted in our modern steelmaking facilities and made to your unique specification. Our material is produced with tight chemistry control to provide heat-to-heat analysis consistency and unparalleled cleanliness.

ELLWOOD produces super clean materials using the Vacuum Arc Remelt (VAR) and Electro Slag Remelt (ESR) processes when required by your specification.

We are excited to announce that Aluminum production begins fourth quarter of 2020!

Call us today to see how we can provide a material solution for you!

# GRADES

## Typical Grades

Our inhouse steelmaking allows us to make hundreds of standard grades, as well as customized chemistries to fit your every need.

CARBON & ALLOY							
10XX	11XX	13XX	15XX	33XX	40XX	41XX	43XX
46XX	47XX	48XX	50XX	51XX	52100	61XX	81XX
86XX	87XX	88XX	92XX	93XX	94XX	HY80	HY100
Nit135N		17CrNiMo6					

STAINLESS & NICKEL ALLOYS			
304/304L/304LN	308/308L	309/309L	310/310H
316/316L/316LN	317/317H	321/321H	347/347H
348/348H	403	410/410S	416
420	430	431	440 A/B/C
15-5 / 17-4	DUPLEX	FXM-19	F6NM
Alloy 600	Alloy 625	Alloy 800	Alloy 825

VAR & ESR			
4340	9310	300M	D6AC
4330V	15-5		
ALUMINUM			
6061	7050	7075	

COMMON SPECIFICATIONS							
A182	F1	F2	F5/F5A	F6A/F6B	F6NM	F7	F9
	F11	F12	F21	F22	F51	F60	F91
A350	LF2	LF3	LF6				
A105	A286	A291	A335	A336	A469	A470	A471
A485	A508	A514	A668	A694	A707	A723	
API 6A-PSL3 & 4	AMS-S-5000		T9074-BD-GIB-010/300				
MIL-S-23284	MIL-S-46172		ABS GRADE 2				
APPROVALS — AS9100 ACCREDITED							
AEROSPACE		MARINE		POWER GEN			

# SHAPES & SIZES

## Shapes

Round, square, rectangular, or octagonal — we can forge the shape that works best for your reforging operations!

## Sizes

### Round/Octagonal

6" through 70" diameter

### RCS/Square/ Rectangular

6" through 62" thickness

## Tolerances

### 6" through 15.875"

+/- .25"

### 16" through 70"

+/- .50"

## Surface Finishes

Spot Ground

100% Ground

Rough Machined