



# Bar Capabilities

**Ellwood City Forge** is the leading supplier of open die forgings in North America. Our high quality steel, coupled with quick, reliable lead times, makes us the bar producer of choice for steel service centers, machine shops, and original equipment manufacturers.



Ellwood Group, Inc. is fully integrated, included a state-of-the-art steelmaking facility. We use only superior steel that is electric furnace melted, ladle refined, vacuum degassed, and bottom poured. Close chemistry control can provide steel that meets more than one SAE grade, such as 4140/4142. This means less inventory, more predictable heat treat response, and chemistries that are customized to your specific requirements. Additional refining via Vacuum Arc Remelting (VAR) or Electro Slag Remelting (ESR) can also be provided.

ECF provides bars in carbon and alloy, as well as stainless and nickel-based grades manufactured in our advanced VOD melt shop. Four open die presses allow us to provide forgings up to 110,000 pounds, lengths to 57 feet, and diameters to 140 inches.

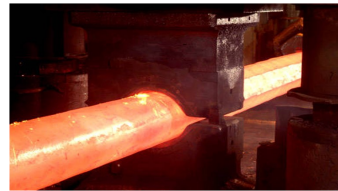
Our standard practice ensures all bars receive adequate forge reduction--all bars are ultrasonic tested to assure sound centers. The use of swage dies on our 1500T press produces round bars with smoother surfaces than can be achieved with flat dies. Swage dies increase versatility of a traditional hydraulic open-die press. Other benefits include improving the quality of the forgings, decreasing forging allowance, machine times and production costs.



### State-of-the-Art Bar Peeler

ECF's bar peeler provides a more economical way to machine bars, which translates into competitive prices and quick lead times for our customers.

### Sizes 6" and larger



### Typical Grades

These and other grades can be produced to your specifications.

#### CARBON & ALLOY

10XX	41XX	51XX	88XX
11XX	43XX	52100	92XX
13XX	46XX	61XX	93XX
15XX	47XX	81XX	94XX
33XX	48XX	86XX	HY80
40XX	50XX	87XX	HY100
Nit135M		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
F6NM	15-5	17-4	Duplex
B753 Alloy T36	S31254/F44	Alloy 600	Alloy 625
FXM-19	Alloy 800	Alloy 825	

#### VAR & ESR

4340	9310	300M	D6AC
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#### 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							

