



**Charging the Industry  
with Excellent Quality  
and Service**

## **Buffalo Precision Products, Inc.**

2505 Millennium Drive, Elgin, IL 60124

Toll Free: 1-877-374-5763 (1-877- DRIL ROD) - Tel: 630-883-3174 - Fax: 630-883-3121

Visit our website - [www.buffaloprecision.com](http://www.buffaloprecision.com)

# **Precision Ground Flat Stock**

**AISI  
SAE**

**O-1**

Oil Hardening

**AISI  
SAE**

**A-2**

Air Hardening

Effective: October 17, 2013



**The Leader in Service  
and Quality**

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### **TOLERANCES**

	<b>Precision</b>	<b>Oversize</b>
<b>Thickness</b>	$\pm .001$	$+ .010$ to $.015$
<b>Width</b>	$+ .005$ - $.000$	$+ .010$ to $.015$
<b>Length</b>	$+ .062$ min	$+ .062$ min
<b>Terms</b>	<b>1/2 10 net 30 days</b>	
<b>Minimum</b>	<b>\$25</b>	
<b>Returns:</b>	<b>Must be approved - restocking charge may apply.</b>	

### **FREIGHT**

**Orders totaling \$100 net F.O.B delivered**

**DISTRIBUTOR PRICES  
PER LENGTH**

**AISI  
SAE**

**O-1**

**Oil Hardening  
PGFS**

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
1/64	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
	3				
1/32	4				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
3/64	3				
	3-1/2				
	4				
	6				
	1/4				
	5/16				
	3/8				
	1/2				
1/16	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
	3				
	3-1/2				

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
1/16	4				
	5				
	6				
	8				
	10				
5/64	1/4				
	5/16				
	3/8				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
3/32	2				
	2-1/2				
	3				
	4				
	6				
	1/4				
	5/16				
	3/8				
7/64	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
	3				
	4				
	6				
1/8	1/8				
	1/4				
	5/16				

•Non-standard and special tolerances priced upon request.

**DISTRIBUTOR PRICES  
PER LENGTH**

**AISI  
SAE**

**O-1**

**Oil Hardening  
PGFS**

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
1/8	3/8				
	1/2				
	5/8				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
6					
7					
8					
10					
12					
14					
9/64	9/64				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
3					
4					
5/32	5/32				
	1/4				
	5/16				
	3/8				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
4					
5					
6					
8					

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
3/16	3/16				
	1/4				
	5/16				
	3/8				
	1/2				
	5/8				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
3					
3-1/2					
4					
5					
6					
8					
10					
12					
7/32	7/32				
	5/16				
	3/8				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
3					
4					
6					
8					
1/4	1/4				
	5/16				
	3/8				
	1/2				
	5/8				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
2					
2-1/2					
3					

**DISTRIBUTOR PRICES  
PER LENGTH**

**AISI  
SAE**

**O-1**

**Oil Hardening  
PGFS**

Thickness	Width	PRICE PER LENGTH				
		18"	18"OS	36"	36"OS	
1/4	3-1/2					
	4					
	4-1/2					
	5					
	5-1/2					
	6					
	7					
	8					
	10					
	12					
	14					
	9/32	9/32				
		1/2				
		3/4				
1						
1-1/4						
1-1/2						
1-3/4						
2						
2-1/2						
3						
5/16	5/16					
	3/8					
	1/2					
	5/8					
	3/4					
	1					
	1-1/4					
	1-1/2					
	1-3/4					
	2					
	2-1/2					
	3					
	3-1/2					
	4					
4-1/2						
3/8	3/8					
	1/2					
	5/8					
	3/4					

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
3/8	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
	5-1/2				
	6				
	7/16	7/16			
1/2					
3/4					
1					
1-1/4					
1-1/2					
2					
2-1/2					
3					
4					
1/2	1/2				
	5/8				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
6					
7					
8					
10					
12					
14					

•Non-standard and special tolerances priced upon request.

**DISTRIBUTOR PRICES  
PER LENGTH**

**AISI  
SAE**

**O-1**

**Oil Hardening  
PGFS**

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
9/16	9/16				
	3/4				
	1				
	1-1/4				
	1-1/2				
5/8	2				
	5/8				
	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	5				
	6				
3/4	7				
	8				
	10				
	12				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
4					
4-1/2					
5					
6					
8					
10					
12					
7/8	7/8				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
	3				
	3-1/2				
4					
6					

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
1	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
	6				
1-1/8	8				
	10				
	12				
	1-1/8				
	1-1/2				
	2				
1-1/4	3				
	4				
	5				
	6				
	8				
	10				
	1-1/4				
	1-1/2				
	2-1/2				
	3				
1-1/2	3-1/2				
	4				
	5				
	6				
	8				
	10				
2	2				
	3				
	4				
	6				
2-1/2	2-1/2				
3	3				
4	4				

**DISTRIBUTOR PRICES  
PER LENGTH**

**AISI  
SAE**

**A-2**

**Air Hardening  
PGFS**

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
1/16	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	5				
6					
3/32	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	5				
	6				
1/8	1/2				
	5/8				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
5					
6					
7					
8					
10					
12					
5/32	1/2				
	3/4				
	1				

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
5/32	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	5				
	6				
	7				
	8				
	10				
	12				
	14				
15					
3/16	3/16				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	5				
	6				
	7				
8					
10					
12					
1/4	1/4				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
3-1/2					
4					

\*Non-standard and special tolerances priced upon request.

**DISTRIBUTOR PRICES  
PER LENGTH**

**AISI  
SAE**

**A-2**

**Air Hardening  
PGFS**

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
1/4	5				
	6				
	7				
	8				
	10				
	12				
5/16	5/16				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
	5-1/2				
	6				
	8				
	10				
12					
3/8	3/8				
	1/2				
	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
	6				
	7				
	8				
	10				
12					
1/2	1/2				
	5/8				

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
1/2	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
5/8	5-1/2				
	6				
	7				
	8				
	10				
	12				
	5/8				
	3/4				
	1				
	1-1/4				
	1-1/2				
	2				
2-1/2					
3					
3-1/2					
4					
4-1/2					
5					
5-1/2					
6					
7					
8					
10					
3/4	3/4				
	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
2-1/2					
3					
3-1/2					
4					
4-1/2					



**DISTRIBUTOR PRICES  
PER LENGTH**

**AISI  
SAE**

**A-2**

**Air Hardening  
PGFS**

Thickness	Width	PRICE PER LENGTH			
		18"	18"OS	36"	36"OS
3/4	5				
	5-1/2				
	6				
	7				
	8				
	10				
7/8	12				
	7/8				
	1				
	1-1/4				
	1-1/2				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
5-1/2					
6					
7					
8					
10					
1	1				
	1-1/4				
	1-1/2				
	1-3/4				
	2				
	2-1/2				
	3				
	3-1/2				
	4				
	4-1/2				
	5				
	5-1/2				
	6				
	7				
8					
10					
12					
1-1/4	1-1/4				
	1-1/2				
	2				
	2-1/2				
	3				
3-1/2					

Thickness	Width	PRICE PER LENGTH				
		18"	18"OS	36"	36"OS	
1-1/4	4					
	4-1/2					
	5					
	5-1/2					
	6					
	7					
	8					
	10					
	12					
	1-1/2	1-1/2				
		2				
		2-1/2				
3						
3-1/2						
4						
4-1/2						
5						
5-1/2						
6						
7						
8						
10						
12						
14						
2	2					
	2-1/2					
	3					
	3-1/2					
	4					
	4-1/2					
	5					
	5-1/2					
	6					
	7					
	8					
	10					
	12					
	14					
2-1/2	2-1/2					
3	3					
4	4					

\*Non-standard and special tolerances priced upon request.

# Ground Flat Stock

## Heat Treatment Instructions

### AISI SAE 0-1 Ground Flat Stock

**HEAT TREATMENT** for sections smaller than 1/4", heat to 1450 - 1475°F and hold until heated through. For larger sections, preheat to 1200°F, then raise to 1450 - 1500°F hardening temperature, hold half an hour per inch of cross section. Quench in oil at 125 - 150°F and TEMPER IMMEDIATELY.

#### Tempering Data

Temper°F	Rockwell C Hardness
As Quenched	63-65
300	63-65
400	61-64
500	60-63
600	57-60
800	48-51
1000	44-48

### AISI SAE A-2 Ground Flat Stock

**HEAT TREATMENT** Preheat thoroughly at 1450°F, then raise to hardening temperature 1725 - 1800°F and soak uniformly. For larger sections, use high side; for thin or smaller sections, use low side. Quench in still air or dry air blast at 125 - 175°F, then TEMPER IMMEDIATELY.

#### Tempering Data

Temper°F	Rockwell C Hardness
As Quenched	62-65
300	61-64
400	59-62
500	58-61
600	57-60
800	56-59
900	55-58
1000	56-59