

Pacific Alloy Castings, Inc.
Founded In 1880



#### Introduction

It takes years to build a reputation for superior workmanship, reliable service and integrity. Our employees are proud of the reputation they have earned in the agricultural industry, and we regard it as our biggest asset.

Our business is only as good as our employees, and we know they are among the best in the industry. Their dedication to quality and customer service will contribute heavily to our growth and success.

Our philosophy is simple, produce castings of the highest quality, engineered to your requirements, and provide them reliably.

We take pride in our reputation as a time proven source for custom castings, designed to meet your needs. If you are a customer of ours, we thank you for your business. If you are not, we welcome the opportunity to be of service to you.

### History

Pacific Alloy Castings, Inc. of South Gate, California, a suburb of Los Angeles, is a foundry

specializing in the production of abrasion resistant irons and steels.

Founded in 1880 in Portland, Oregon by Francis Leach, the foundry produced gray iron sash weights and wood burning stoves. As the foundry passed on to succeeding generations in the Leach family its production methods and products became more sophisticated. In 1937 the foundry was moved to Los Angeles, CA by George and Winfield Leach. Walter Leach, Winfield's son became president in 1963 and operated the foundry until his retirement in 1973. The foundry is now managed by his son James Leach, president and general manager.

Pacific Alloy Castings evolved from a small gray iron foundry to a high alloy iron producer occupying 36,000 square feet of building on 3 acres. Our castings are sold nationwide and used in most process industries including agricultural, asphalt, cement, construction, dredging, heat-treating, industrial minerals, mining, petrochemical, paper, sand and gravel.

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### **Special Products**

### **Chisel Tip**



Part No.: CT-3 Cross Reference:

Fits 2" Chisels

### **Mulcher Blade Wear Edges**







· 10 times wear life of Hardfacing

· Easy to install

Part No.: MRB-10 - Round Design

MBS-50 - Square Design

Fits most blades Cross Reference:

### Alfalfa Spike



Part No.: AT-3 Cross Reference:

Fits 1-3/4" Spikes

### **Sweep Tips** and Edge Protectors



Part No.

ST SI-6

SI-12

Description Sweep Tip

**Edge Protector** 

(1-1/8" x 6")

**Edge Protector** 

(1-1/8" x 12")

### **Lister Points**



Part No.: LP-87

Part No.: LP-87-2 Light Duty

Cross Reference:

Fits all14" Lister

**Shares** 

### **Boot Point for Rod Weeder**



Part No.: AG-8900-00

Cross Reference:

Acra Plant #8900-00

Calkins #5-919-606

### Special Products

### **Plow Share Tips**





Part No.: PST-4000 Right

Cross Reference: F

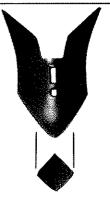
Fits all shares

Part No.: PST-4000 Left

Cross Reference:

Fits all shares

### Furrow Tips



Part No.: FT-1

Cross Reference:

Fits 9" and 12"

**Snub Nose Furrow** 

Other sizes available

### **Adjustable Foot Piece**

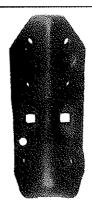


Part No.: FP-33-C

Cross Reference: 78-FP-3133-C

Other sizes available

### Lister Frogs





Part No.: JD-43-LF

Cross Reference:

JD-7958A

#### Replace This

With This Weld-On Style

### **Shank Tip**





Part No.: CCP-5

Cross Reference:

Diamond Point Shank Tip

### Twisted Shovel Tip



Part No.: TST-1

Cross Reference: Fits most shovels

Other sizes available

### **Tufmetal II Planter Openers**



Part No.: AG-A24371

Cross Reference: John Deere #A24371



Part No.: AG-A18004

Cross Reference: John Deere #A18004



Part No.: AG-4100-00

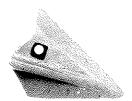
Cross Reference: Acra-Plant #4100-00



Part No.: AG-9541-41

Cross Reference: Acra-Plant #9541-41

## **Tufmetal II Drill Points**



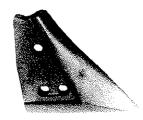
Part No.: AG-7100-60

Cross Reference:

Acra-Plant #7100-60

(Z6)

Calkins #5-919-646



Part No.: AG-7120-00

Cross Reference:

John Deere HZ Series

Acra-Plant #7120-00



Part No.: AG-7100-70

Cross Reference:

Acra-Plant #7100-70

(Z7)

Complete with Roll Pin



Part No.: AG-809-01

Cross Reference:

Dyko DNC-809-"V"



Part No.: CCP-1

Cross Reference:

John Deere #300170-01

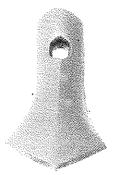
# Tufmetal II Points and Spikes for Danish S-Tine Shanks



Part No.: Description: AG-8601-01 1" Spike

(Complete with Bolt, Nut and Neoprene Shim)

Cross Reference: Acra-Plant #8601-01



Part No.: Description:

AG-8602-01 2-1/2" Goosefoot

(Complete with Bolt, Nut and Neoprene Shim)

Cross Reference: Acra-Plant #8602-01

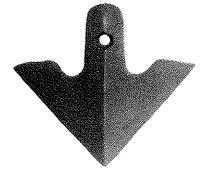


Part No.: Description:

AG-8603-00 4" Sweep

(Complete with Bolt, Nut and Neoprene Shim)

Cross Reference: Acra-Plant #8604-02



Part No.:

AG-8607-02

Description: 7" Sweep

(Complete with Bolt, Nut and Neoprene Shim)

Cross Reference: Acra-Plant #8607-02

### Tufmetal II Fertilizer Knife Inserts



TYPICAL APPLICATIONS

TUFMETAL II INSERT

FOR USE ON FERTILIZER KNIVES





Part No.: C-12

Description: 7-1/2" High with

3-1/2" Long Wrap



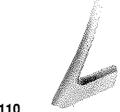
Part No.: C-19

Description: 8" High.



Part No.: C-13

Description: 7" High



Part No.: C-110

Description: 8" High with

5" Long Wrap



Part No.: C-14

Description: 8-1/2" High with

4-1/8" Long Wrap with 3/4" Wide Foot

Part No.: STP-434

Description: Straight Tube Protector

Part No.: CTP-4

Description: Curved Tube Protector

# Tufmetal II Complete Fertilizer Knives

### **BACK SWEPT**



17BSW SHOWN

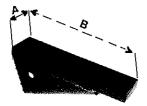
### **FRONT SWEPT**



**FSC14W SHOWN** 

PART NO.	SIZE	CHROME CARBIDE INSERT	TUBE PROTECTOR
		BACK SWEPT	
13BSW 13BSWO 17BSW 17BSWO	13" 13" 17" 17"	C19 C19 C19 C19	CTP-4 WELD BEAD CTP-4 WELD BEAD
		FRONT SWEPT	
FSC12W FSC12WO FSC13W FSC13WO FSC14W FSC14WO FSC110W FSC110WO	16" 16" 16" 16" 16" 16"	C12 C12 C13 C13 C14 C14 C110	STP-434 WELD BEAD STP-434 WELD BEAD STP-434 WELD BEAD STP-434 WELD BEAD

# Tufmetal II Ripper Point Castings



To select the correct casting, measure Dimension "A" and that portion of dimension "B" to be covered and choose the part number that fits.

NOTE: The casting Part No. reflects its actual size (i.e., B178-6 is 1-7/8" x 6")



Castings are made slightly oversized on width to allow fillet weld to be "hidden".

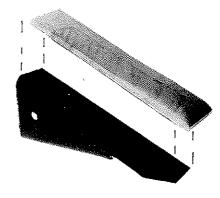
DIMENSION A	DIMENSION B	PART NO.

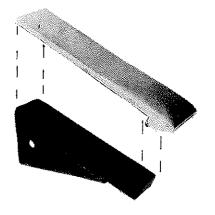
### STYLE B CAP

2-1/2"	6"	B278-6
2-1/2"	8"	B278-8
1-1/2"	6"	B178-6
2"	6-1/2"	B238-612
6"	10"	B612-10
2"	12"	B238-12
2-1/2"	12"	B278-12
3"	12"	B338-12
4"	12"	B438-12
3-1/4"	14"	B312-14
6"	14"	B612-14
3"	16"	B338-16
4"	16"	B438-16
5"	16"	B538-16
5"	18"	B538-18
5"	20"	B538-20

### STYLE BE

7"	BE214-7
8"	BE278-8
10"	BE238-10
10"	BE278-10
12"	BE238-12
12"	BE278-12
12"	BE338-12
12"	BE438-12
	8" 10" 10" 12" 12" 12"





# Tufmetal II Ripper Point Castings

DIMENSION A DIMENSION B PART NO.

STYLE B-H, BE-H

2-1/2" 12" B278-12H3 2" 12" B238-12H3

STYLE BB CAP

1-3/4" 7" B178-B612-C

STYLE F

2" 3" F238-3 3" 2-1/2" F278-3 1-3/4" 3-1/2" F178-312 2-1/4" 4" F212-4 4" F312-4 2" 12" F238-12 2-1/2" 12" F278-12 12" F314-12 12" F438-12

STYLE FDE

2" 8" F238-8DE 2-1/2" 8" F278-8DE



# Tufmetal II Complete Ripper Points

P.A.C. PART NO.	CASTING CAP#	DIMENSIONS T x W x L	SHANK SIZE	STYLE	ORIGINAL MFG. NO.	SUBSOILER WITH TUFMETAL II CASTING WELDED ON
		ALLIS	CHALMER	RS		
AC-342 AC-343 AC-125 AC-133 AC-144	BE-238-12 BE-338-12 BE-278-12 BE-338-12 BE-438-12	3/4 x 2 x 12 3/4 x 3 x 12 1 x 2-1/2 x 12 1 x 3 x 12 1-1/4 x 4 x 12	1-1/8 1-1/8 1-1/2 1-1/2 1-1/2	SLIP-ON SLIP-ON SLIP-ON SLIP-ON SLIP-ON	412050 402584 412279 403702 404289	
		JOHN	DEERE			
342JD 12JD 12JD 12JD 36081JD 36081JD 36081JD 39096JD 39096JD	BE-278-12 B-238-612 BE-214-7 BE-238-12M F-278-3 BE-278-8 BE-278-12M F-278-2 BE-278-8	1 x 2-1/2 x 12 1 x 2 x 12 1 x 2 x 12 1 x 2 x 12 1 x 2 x 12 1 x 2-1/2 x 12 1 x 2-1/2 x 12 1 x 2-1/2 x 12 1 x 2-1/2 x 14 1 x 2-1/2 x 14		SLIP-ON BOLT BOLT BOLT BOLT BOLT BOLT BOLT BOLT	AA-21507 A-17994 A-17994 A-17994 Q-36081 Q-36081 Q-36081 K-39096 K-39096	
NOTE: M = Mo	odified to accept Jo	hn Deere hole patterr	ı.			
		BUS	SH HOG			
3425BH	BE-278-8	3/4 x 2-1/2 x 8-1/8	1-1/4		SLIP-ON	
	BIG ED					
582E 1LOE 3424E	BE-214-7 B-178-6 BE-214-7	1 x 2 x 7 1/2 x 1-5/8 x 6 3/4 x 2 x 7	1 1 1-1/4	SLIP-ON SLIP-ON SLIP-ON	1LO	
MURRAY						
582M 1LOM 3424M	BE-214-7 B-178-6 BE-214-7	1 x 2 x 7 1/2 x 1-5/8 x 7 · 3/4 x 2 x 7	1 1 1-1/4	SLIP-ON SLIP-ON SLIP-ON	1LO	

# Tufmetal II Complete Ripper Points

P.A.C. PART NO.		MENSIONS T x W x L	SHANK SIZE	STYLE	ORIGINAL MFG. NO.	SUBSOILER WITH TUFMETAL II CASTING WELDED ON
			INTERNA	TIONAL		
IH-1S IH-1 IH-14	F-238-8DE F-238-8DE BE-238-10	1 x 2 x 8 1/2 x 2 x 8 1 x 2-1/4 x 10	1 1 1-3/8	BOLT BOLT SLIP-ON	954530R2 1101188C1 13163601	
			BIG C	X		
2D5 2D5B 2D5BE	PLAIN B178-B612-C BE-214-7	1-3/4 x 7 1-3/4 x 7 1-3/4 x 7		SLIP-ON SLIP-ON SLIP-ON	2D5 2D5 2D5	

#### **SOLID CHROME POINTS**

AG-8001-01 SOLID CHROME	1	ORTHMAN, HAMBY, and	JOHNSON
AG-8002-07 SOLID CHROME	1	BIG OX	
AG-8006-01 SOLID CHROME	1-1/4	JOHN DEERE 900	
		P&M, BUSH HOG	

#### NOTES:

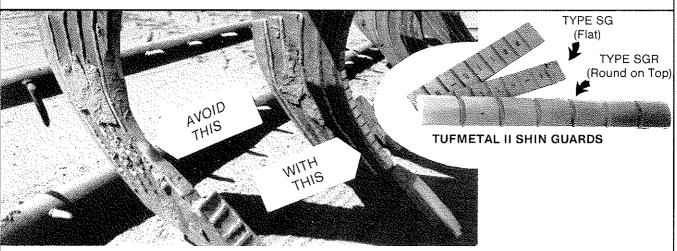
- 1. P.A.C. = Pacific Alloy Castings
- Pacific Alloy Castings offers as a standard the Chrome Ripper Point Casting as noted. However, other styles may be furnished upon request.
- 3. Dimensions represent those of the original manufacturer prior to placement of Pacific Alloy Castings Caps being welded on. (T = Thickness, W = Width, L = Length).
- 4. Additional subsoiler style ripper points can be furnished upon request, such as Brillion, New Kelly, Pittsburgh, Atlas, as well as others.
- 5. See catalog cuts "Subsoiler or Ripper Point Castings" for details of chrome carbide caps.

## **Tool Bar Clamps** and Caps

			47
PART NO.	DESCRIPTION	CAP SIZE	
	CLAMPS		
C-1320	1" x 3" Shank	1" x 2-1/2	
C-3420	3/4" x 2" Shank	1" x 2"	
C-5820	5/8" x 2" Shank	5/8" x 2"	A
B-1140	5/8" x 1-1/2" Shank	5/8" x 1-1/2"	M
C-5820-S	5/8" x 2" Square (Flat) Shank	5/8" 2"	
C-2140	1-1/4" x 1-3/8" Round Shank	5/8" x 1-1/2"	
			101
	CAPS		
CC-1412	Clamp Cap	5/8" x 2"	

Other Sizes Available

### Tufmetal II Ripper Shank Shin Guards



SHANK WIDTH	PART NO.	SHIN GUARD	
1"	SG-114-9	1-1/4" x 9"	<ul> <li>SHIN GUARDS ARE SLIGHTLY WIDER THAN THE SHANK TO ALLOW</li> </ul>
1-1/8"	SG-112-9	1-1/2" x 9"	THE WELD TO BE "HIDDEN".
1-1/4"	SG-112-9	1-1/2" x 9"	• SHIN GUARDS CAN BE BROKEN ON 1"
1"	SGR-114-14	1-1/4" x 14"	INCREMENTS TO PERMIT BEING WELDED TO VIRTUALLY ANY SHAPE.
1-1/4"	SGR-112-14	1-5/8" x 14"	• SHIN GUARDS MAKE
1-3/8"	SGR-112-14	1-5/8" x 14"	GREAT WEAR PATCHES FOR QUICK REPAIR TO MANY IMPLEMENTS WITH WEAR PROBLEMS.
1-1/2"	SGR-134-14	1-3/4" x 14"	WEATH ROBELMO.
2"	SGR-238-14	2-3/8" x 14"	SHIN GUARDS WILL     WEAR LONGER THAN     HARDFACING AND WILL     EXTEND THE LIFE OF A
2-1/2"	SGR-278-12	2-7/8" x 12"	CONVENTIONAL STEEL PART BY UP TO 10 TIMES.

## Tufmetal II Description

### TUFMETAL II

Tufmetal II is a chrome carbide martensitic white iron. It is commonly referred to as 25% chrome iron, 28% chrome iron, or chrome carbide. All are the same alloy made to ASTM A532 Class III Type A.

Tufmetal II is used in applications of extreme sliding or gouging abrasion with moderate impact. It is used extensively in most process industries including mining, sand and gravel, asphalt, and cement. It has also found wide acceptance and success in the agricultural industry when used to protect ground engaging tools and equipment.

#### **CHARACTERISTICS OF TUFMETAL II**

- 1. Wear life of Tufmetal II is up to 15 times greater than conventional tillage steels and 5 times more the wear life of hard faced tools.
- 2. Tufmetal II castings can be welded in place using standard welding equipment, welding rods, and wire. See welding recommendations on page 15.
- 3. Tufmtal II is corrosion resistant and will not corrode like mild steel. It does not have to be protected from rain or snow by painting.

Tufmetal II tillage tools have proved to be the most economical tools a farmer can use today. The proper application of our superior products can greatly increase the wear life of engaging tools and help reduce the farmer's operating costs.

## Tufmetal II Welding Recommendations

We have found the following procedure to be most successful when welding Pacific Alloy Castings Tufmetal II (ASTM A532 Class III Type A) material to a base material of T1 or Plow Steel for ripper points.

#### Directions:

Place chrome casting on flat non-worn base boot slab. If surface is not flat and smooth, take appropriate actions to grind/finish surfaces properly.

Wire feed (MIG):

Lincoln Ready Reel

.035 to .045 diameter rod

70S series

Lincoln part number for .045 is C045L50 Other equivalents are also acceptable.

Amperage:

Use as low amperage as possible (90-120 amps)

Cooling:

**Avoid thermal shocks** (i.e. cold floors, drafts, water) It is recommended that welded parts be placed for slow cooling in a dry sand bed or

ashes with at least 6 inch base.

**Note:** Minor cracks may appear along the edges of the casting after welding. These are not detrimental to the weld or the effectiveness of the casting wearability. This is not a structural weld but merely a bonding process.

#### PRE-HEAT AND AFTER-WELD HEAT TREATMENT

Contrary to most procedures we have found it not necessary to do any preheating or heat treatment. Should you encounter conditions which may require heating, please consult the factory for recommendations.