

[syncros]

evidence • [ninety six]  
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## HARDCORE CHAINRINGS

### Features + Benefits

Heat treated Al 7075 T6

Ultra hard alloy resists wear & deflection, reduces chain suck; 1/2 weight of Ti, 1/3 weight of steel, 2.5X stronger than 6061T6 Al

Hard ceramic coating (Ra 72) .001" (.025mm) thick

High lubricity for smoother shifting, resists wear and distortion

Precision gear cut teeth  
Noiseless, smooth, consistent shifting

Ultra light.

Reduced mass for improved acceleration and feel.



# ther shifting

**CNC machined Ti6246 titanium heat treated spindle**

40% stronger than conventional Ti-6, 60% stronger and half the weight of chrome.

**Outboard bearing position**

Reduces spindle flex (crucial with Ti spindles) increases bearing life and spindle strength, simulates 73mm bb shell width on all bikes.

**Hollow ground spindle flats**

Dished, tapered flats increase drive on spindle corners.

**Hollow gun drilled**

Light weight.

**Wrought 6061T6 alloy Cups**

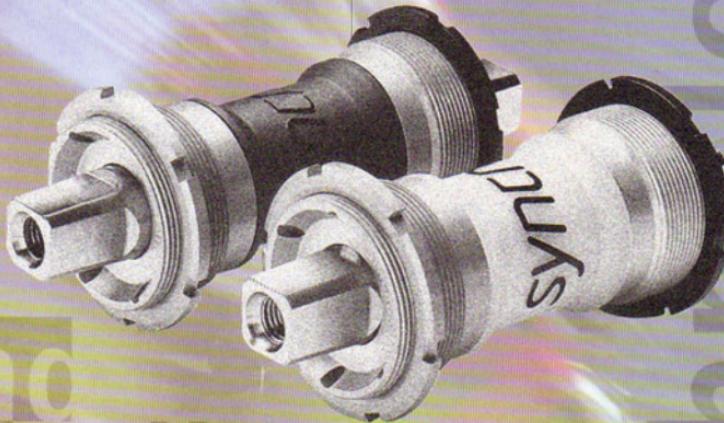
High strength, 1/3 the weight of chrome, excellent corrosion resistance.

**Hard coat anodized (Ra72) .001" thick (.025mm)**

Strong, durable thread, prevents cups from freezing into frame, eliminates corrosion and thread galling.

**7075 T6 alloy, micro-adjustable lock rings**

Chain line can be micro adjusted to optimize front shifting, allows the use of a spindle 5mm shorter than usual.



**state of the**

**Quad ring seals at spindle/cup interface**

Holds lubricant in a labyrinth for extremely low friction and full contact seal to keep dirt out of bearings.

**O-ring seals on water sleeve**

Seals bb cavity, minimizes water aspiration into bearings.

**HARDCORE****Double row, angular contact bearings**

Increases system rigidity, triples bearing life, high over-load capacity.

**ALTURA****Deep groove radial contact bearings**

Ultra low friction



## SNOWBOARDS

Features + Benefits

### Laminate (topsheet/core)

90° Arimid pre cured fibreglass panel under tension and provides it, even longitudinal flex, with consistent torsional stability. translates into snap out of the turn, longer core life and less camber breakdown. Full, board-length and with lamination beyond edge provides increased impact resistance, roves edge response and reduces laminating tendency. Ideal resin/glass ratio of pre cured glass eliminates the inconsistencies of "wet-up" construction. Lighter overall weight, versus ABS topsheet construction. Translation: Light, even-edged boards, consistent in performance.

**Resin**  
Inco Grizzly Epoxy laminating resin, high absorption rate and ideal low-viscosity provide maximal resin penetration into laminate structure, superior bonding, post-cure durability and resilience. Translation: excellent board integrity and delamination resistance.

**Damping**  
Bekkorn vulcanized rubber - 2mm - dampening in key joint areas is used to reduce edge-chatter, assist in flex modulation and shock absorption. Syncros uses twice as much rubber in our edge, nose and tail section. Translation: Provides smooth ride in varied conditions of terrain, ice and hard-packed conditions.

**Edges**  
Syncros boards are constructed with woodcraft cores. Cores are vertically laminated, all-wood in a synergistic combination of a mid-density, compression-testing Aspen, coupled with a high-density, impact-resisting Birch toward the edges. Together, they result in a lively, responsive core with excellent camber "memory" and copy flex characteristics. Cores are precision shaped with an integral "suspension", the core ends reach into the nose and tail - past the protective edge/kick transition - absorbing shock forces at the tip/tail extremes - dispersing them evenly.



### Sidewalls/Nose/Tail

Acrylonitrilebutadienestyrene (better known as ABS), is a tri-polymer compound that is used in our sidewall, nose and tail-piece construction. ABS's flex, bonding properties, strength in laminate, and durability under stress/impact forces makes it the material of choice for board construction. Translation: Superior core/laminate protection, flexibility for tip/tail riding.

### Inserts/Hole Pattern

Inox steel inserts @ 8mm x 1mm with base, eliminate the problems associated with zinc-plated, baseless inserts: no base ruptures, bumps or bulges; clean, no-rust threads - positive interface with bindings. Baseless-compatible Stance: 44.5 - 69.0cm/ 17.5 - 27.1"

### 4X4 Hole Pattern

@ 10 x 10 pack on Syncros small/mid-size models allows for maximum stance-range with 4x4 slotted and multi-hole disk bindings. Centred for freestyle-oriented riding and maximum energy transfer to edge and the camber area. Baseless-compatible. Stance: 44.5 - 69.0cm/ 17.5 - 27.1"

### 10x12

pack pattern on 163.5 Syncros is setback 2.5cm to accommodate faster, more aggressive riding and is equipped with the extra pair of Inox inserts for powder/free-mountain riding. This stance allows for more power off-the-tail. Baseless-compatible. Stance: 43.2 - 70.3cm / 17.0 - 27.7"

### Graphics/Finish

Graphics are all screened with the highest quality, two-part component epoxy screen paints. Pre cured fibreglass topsheets are screened directly - eliminating the need for an extra layer in production (as with ABS). Result: high quality graphic layer that is highly resistant to dings, scratches and abrasion from coarse snow etc. Translation: Tough, looks cool.

throughout the board. Translation: Lively, responsive turning, smoother entry/exit in turns and increased stability on big landings.

### Edges/Base

Steel edges, 48 on the Rockwell Hardness scale. Durasurf 2001 Base Material is used on all board models, due to its superior durability in relation to regular Ptex. Higher impact/rock factor tolerance, no "running tears" and - with the addition of sintering - highest wax absorption possible. Translation: Cleaner edge-to-edge transitions, faster base-running, more speed in powder, higher air:

## HARD CORE HEADSET

### Features + Benefits

CNC machined Al 7075 T6 cups & top race

Ultra high precision, perfect bearing fit, no fretting or misalignment, light weight, high strength, durable Hard coat anodized ( $R_c72$ ).001" thick (.025mm)

Strong, durable, prevents cups from freezing into frame, eliminates corrosion and galling.

Snap on Delrin™ boot & Teflon™ lower piston ring

Impact resistant, waterproof, sealing mechanism, low friction, positive contact seal with O ring preload spring keeps water, dirt & grunge out of lower bearing

**Non-contact labyrinth upper shield**

Frictionless seal keeps water, dirt & grunge out of upper bearing

**Double O ring seal inside top race**

Keeps water & grunge from contaminating lower bearing, aids system alignment

**INA double sealed upper cartridge bearing**

Low friction, precision ground races handle pure radial loads, high overload capacity. German quality

**INA double sealed bi directional angular contact lower cartridge bearing**

Handles radial and thrust loads, durable, increases system rigidity, triples bearing life, high overload capacity. German quality



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## CATTLEPROD STEM

### Features + Benefits

Custom drawn Al 6061T6

aircraft grade tubing

High strength, low modulus  
material absorbs energy, damps  
vibration, smooths out rough sur-  
faces, highly resistant to shock  
and impact loading.

Huge section, thin wall,  
differentially tapered  
extension tube

Extra stiff tubular design for max-  
imum resistance to bending.  
Power for climbing and control in  
rocky sections are improved.

Ultra strong.

Monocoque handlebar clamp  
assembly, computer machined  
from billet

Generates extremely high clamp-  
ing pressure for maximum han-  
dlebar retention.

Extra wide twin bolt clamp  
assembly

Reduces handlebar stress from  
clamping.

Beveled quill top with counter  
sunk bolt head

Low profile design and reduced  
vertical protrusion minimizing  
chance of injury from impact.

Powder coat finish

Matte, virtually chip proof finish,  
no dangerous chemicals used in  
coating or clean up.

Z-bolt expander bolt

High strength zirconia, 1/2 the  
weight of titanium and 3 times  
strength to weight ratio of steel.

Heat treated threaded steel  
insert and zinc plated pinch  
bolts

High strength, corrosion resistant  
fastening system.



# ultra strong



## CATTLEHEAD STEM

### Features • Benefits

Custom drawn Al 6061T6  
aircraft grade tubing

High strength, low modulus material  
absorbs energy, damps vibration,  
smooths out rough surfaces, highly  
resistant to shock and impact loading.

Huge section, thin wall,  
differentially tapered extension  
tube

Extra stiff tubular design for maxi-  
mum resistance to bending. Power  
for climbing and control in rocky

sections are improved. Ultra strong

Split cotter clamp mechanism

Clean, strong, positive fastening  
system. No pinch bolts to bash  
your knees on. Easy to adjust.

Wedge lock (patent pending)

Replaces "star fangled washer" on  
Ahead™ Set. Provides more surface  
area contact in fork steerer for  
more solid headset adjustment that  
won't vibrate loose.

Beveled, cast aluminum top cap  
Low profile design and reduced  
vertical protrusion minimizing  
chance of injury from impact.

Monique handlebar clamp  
assembly, computer machined  
from billet

Generates extremely high clamping  
pressure for maximum handlebar  
retention.

Extra wide twin bolt clamp  
assembly

Reduces handlebar stress from  
clamping.



solid  
control

## **ALTURA STEM**

### **Features + Benefits**

**Custom hard drawn Al 6061T6**

aircraft grade tubing

High strength, low modulus material absorbs energy, damps vibration, smooths out rough road surfaces, highly resistant to shock and impact loading.

**Large section bi-oval shape with variable thickness walls**

Extra stiff tubular design for maximum resistance to bending. Power transfer and control in sprints and out of the saddle climbing are greatly enhanced.

**Monocoque handlebar clamp assembly, computer machined from billet**

Generates extremely high clamping pressure for maximum handlebar retension.

**Beveled quill top with counter sunk bolt head**

Low profile design and reduced vertical protrusion minimizing chance of injury from impact.

**2-bolt expander bolt**

High strength zirconia, 1/2 the weight of titanium and 3 times strength to weight ratio of steel.

**Powder coat finish**

Matte, virtually chip proof finish, no dangerous chemicals used in coating or clean up.

**Heat treated threaded steel insert and zinc plated pinch bolt**

High strength, corrosion resistant handlebar fastening system.



**function and fit**

**PRO SERIES  
HANDLEBAR**

Features + Benefits

Aircraft certified Ti 3Al2.5V titanium, hard drawn and heat treated

High strength, long life, great shock absorbing flexibility for a more comfortable ride.

Cold forged, 1 piece integral bar/shim design

Reduces "stress" concentration between handlebar and stem clamp by a factor of 5. Significantly increases handlebar life. No other manufacturer cold forges the bulge part of the bar.

**HARDCORE BAR**

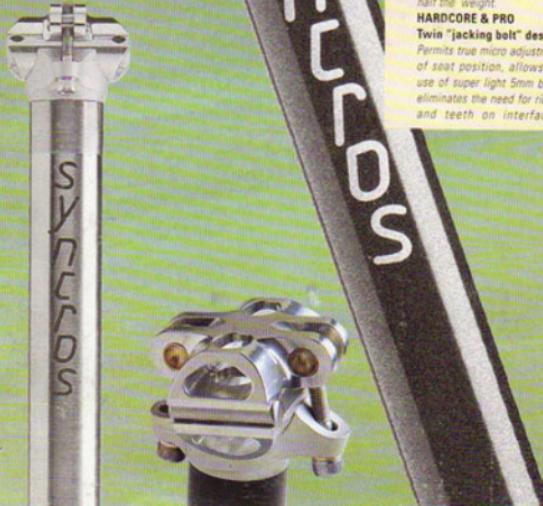
Features + Benefits

Custom hard drawn 7075 T7B aerospace tubing, heat treated and stress relieved. Ultra high strength, low modulus material; absorbs energy, damps vibration, highly resistant to shock and impact loading. Entire handlebar has a wrought directional micro structure produced by cold working, giving full strength throughout the whole handlebar rather than just at the ends as with all other bulged handlebars.

**Hard coat anodized (Rc72)**  
Increases surface modulus for maximum load carrying capacity, eliminates corrosion, provides a hard, scratch resistant surface for control lever mounting.



dangerous  
auth



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## HARDCORE AND PRO POST

Features + Benefits

**HARDCORE** - Custom hard drawn, Al 7075-T7B alloy, heat treated and stress released

2 1/2 times the strength of regular extruded 6061 or 6063 alloys, 1/5 the shock transmission of Cromo.

Hard coat anodized (Rc72) .001" (.025mm) thick

High modulus surface finish increases strength, eliminates corrosion and reduces chances of seat post seizing inside seat tube, good abrasion resistance for long life, gorgeous gloss black finish.

**Grade 12.9** heat treated cromoly alloy bolts

Highest strength bolts made.

**PRO** - Custom seamless drawn Ti 3Al2.5V titanium aerospace tubing

High strength Ti alloy provides superb resilience and flex for an extremely smooth, comfortable ride.

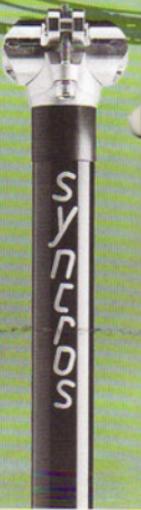
**BT-16** Titanium alloy bolts

Same strength as cromoly,

half the weight.

### HARDCORE & PRO

Twin "jacking bolt" design Permits true micro adjustment of seat position, allows the use of super light 5mm bolts, eliminates the need for ridges and teeth on interfacing



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adjusting surfaces which can easily strip, provides extremely solid clamping.

**Medium lay back offset**

Optimizes seat adjustment range for use with modern frame designs.

**Contoured rear bolt seat**

Allows smooth operation of rear bolt for full range saddle adjustment without bending bolts.

**Saddle joined to pillar by anerobic shrink fit**

Immovable joint provides 70,000+ lb load.

**Al 7075T6 alloy saddle**

High strength, large surface area clamps saddle rails with authority, infinitely adjustable. Custom extruded Al 6061T6 alloy cap

High strength, light weight "bridge" type structure won't bend or flex.

**Bronze rotary nuts**

Allows full range adjustment without bending bolts.

**HARDCORE  
DH SACHS DISK  
BRAKE  
COMPATIBLE  
FRONT HUB**  
**Features + Benefits**

**One piece precision CNC machined Al 7075 hub shell**  
Super strong, perfect bearing alignment for low friction & longer bearing life than 3 piece hub designs.

**Hi-lo flange hub shell**

Builds a stronger wheel by reducing dish. Shorter spokes on rotor side increase stiffness and braking response.

**Oversize, 15mm, heat treated nickel cromoly axle**

Extra stiff for accurate tracking, minimizes wheel flop associated with suspension forks and disc brakes. Design loads input forces on widest part of axle, 3X stiffer than Al, 2X stiffer than MMC axles.

**INA precision ground, double sealed cartridge bearings**

Frictionless rolling & longer bearing life. German quality.

**Positive contact, spring preloaded Teflon™ piston ring seals**

Ultra low friction, fully waterproof sealing system extends bearing life.

**Hard anodized pre load nuts**

Permits exact bearing adjustment.

**Hard anodized lock nuts**

Ultra rigid bearing adjustment, large abutment diameter increases system rigidity.

**Cabriolet design**

Ti axle bolts increase system rigidity 2.5X over QR, easily converts to QR.

**6 bolt rotor attachment**

Strong, secure mounting for disc brake rotor.



**HARDCORE AND HARDCORE DH HUBS**

**Features + Benefits**

**One piece precision CNC machined Al 7075 hub shell**

Super strong, perfect bearing alignment for low friction & longer bearing life than 3 piece hub designs. Wide flange shell. Increased triangulation of spokes builds a stronger wheel.

**Hardcore axle**

Oversize, 15mm, ceramic coated Zircal

Stiff for accurate tracking, minimizes wheel flop associated with suspension forks, design loads input forces on widest part of axle.

**Hardcore DH axle**

Oversize, 15mm, heat treated nickel cro-moly

Extra stiff for accurate tracking, minimizes wheel flop associated with suspension forks, design loads input forces on widest part of axle, 3X stiffer than Al, 2X stiffer than MMC axles.

**INA Precision ground, sealed cartridge bearings**

Frictionless rolling & longer bearing life. German quality.

**Positive contact, spring preloaded Teflon™ piston ring seals**

Ultra low friction, fully waterproof sealing system extends bearing life.

**Hard anodized pre load nuts**

Permits exact bearing adjustment.

**Hard anodized lock nuts**

Ultra rigid bearing adjustment, large abutment diameter increases system rigidity.

**Hardcore - Cabriolet design**

Easily converts to Ti axle bolts for increased (2.5X) system rigidity.

**Hardcore DH - Cabriolet design**

Ti axle bolts increase system rigidity 2.5X over QR, easily converts to QR.



my questions

this is what I think  
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## **CRANKS**

### Features + Benefits

**Custom drawn True Temper OX3,**  
heat treated cromoly, tubular  
arms

3X stiffer, 2X stronger than aluminum,  
flex free power transmission,  
less wasted energy and more speed.

**125 ton cold forged taper socket**

Increases metal hardness in taper for  
a stronger, more durable fit onto bb  
spindles.

**1 piece Powerdisc spider**

Reduces chaining deflection and  
optimizes power transfer.

**Titanium inner chainring nuts &**

**bolts, cold rolled threads**

Lightweight, corrosion resistant, high  
resistance to stripping and cross  
threading, ultra high precision.  
Rolled threads are stronger than cut  
threads.

**Powder coat finish**

Matte, virtually chip proof finish, no  
dangerous chemicals used in coating  
or clean up.

## **C-O-M**

### Features + Benefits

**Ti 6-4 titanium**

Ultra high strength, excellent  
corrosion resistance.

**Class 2, cold rolled thread**

High resistance to stripping  
and cross threading, ultra high  
precision. Rolled threads are  
stronger than cut threads.

**Extra deep socket**

Accepts full torque (18-25 ft.  
lb.) from Allen key without  
deforming or stripping.

**TiOdie II and TiOLube 460**

**surface coating**

Coating permanently impreg-  
nates bolts, eliminates galling  
and seizing; allows bolts to be  
used in Titanium bottom bracket  
spindle.

**Oil filled, sintered bronze  
bushings**

Low friction, low wear bearing  
surfaces, allows smooth opera-  
tion of the bolt which improves  
retention and eases removal.

**Zircal alloy cap**

Ultra high strength fastener  
stock, 1/2 the weight of  
Titanium.

**Hard coat anodized (Ra72)**

.001"(0.25mm) thick  
Prevents threads from freezing  
and eliminates corrosion and  
thread galling.



**ultra high precision**

**syncros**



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