

Ultra Connecting Rods



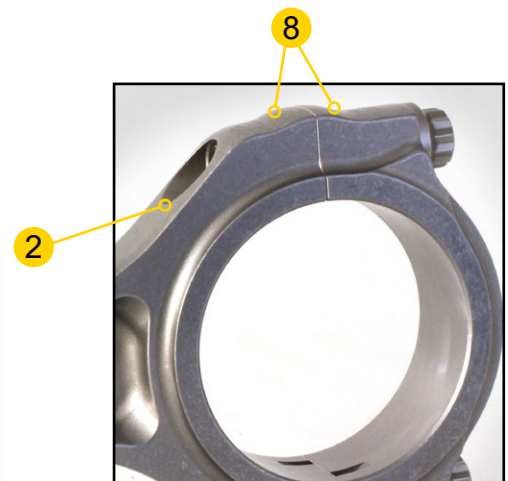
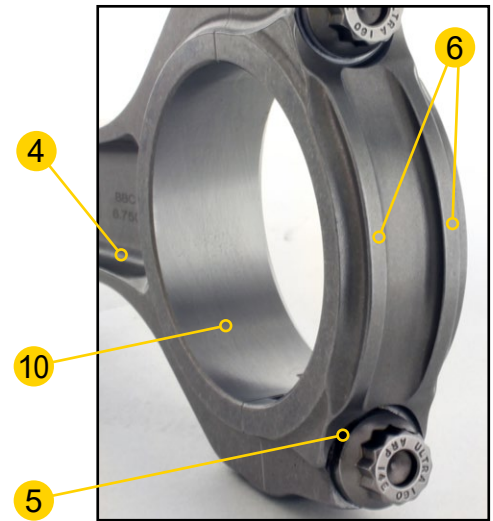
Callies has developed the **Ultra connecting rod** with the design goal of an uncompromised strength to weight ratio. Every Ultra connecting rod is **made entirely in the USA**. They are produced from specially formulated 4330 TimkenSteel and precision forged for uniform grain flow and consistency. Many geometric nuances are incorporated into the design of Ultra connecting rods, which are subject to high output, high RPM applications. These design features enhance the Ultra against specific loads and stresses.

ULTRA ENFORCER

Designed with fortified tower flanges, **Enforcer I-beam** connecting rods are the ideal component for turbocharged and supercharged engines. The I-beam design has been time tested and proven as the most stable configuration in high torque applications. High combustion forces generated within boosted engines are capable of buckling a standard connecting rod that had been intended for a naturally aspirated application.

Ultra Enforcer Connecting Rod Design Features

1. Truncated arc tower flanges improve stiffness and reduce weight.
2. Smooth notch free section at bearing housing shoulder.
3. Pressure angle arches disperse wrist pin induced strain.
4. Large web to flange transition radius.
5. Full fillet intersection of bolt spot face and interior gusset surfaces.
6. Stress spreading (twin rib caps) utilize the extended section concept of strength enhancement.
7. Precisely machined (Trapezoidal Contour) at the tower base eliminating parallel flange harmonics and increasing weight reduction.
8. Extended foot print at joint mating faces for superior housing stability.
9. Min/Max gusset; our analyzed design minimizes material yet achieves maximum stiffness.
10. Low carbon, high-alloy specialty TimkenSteel.



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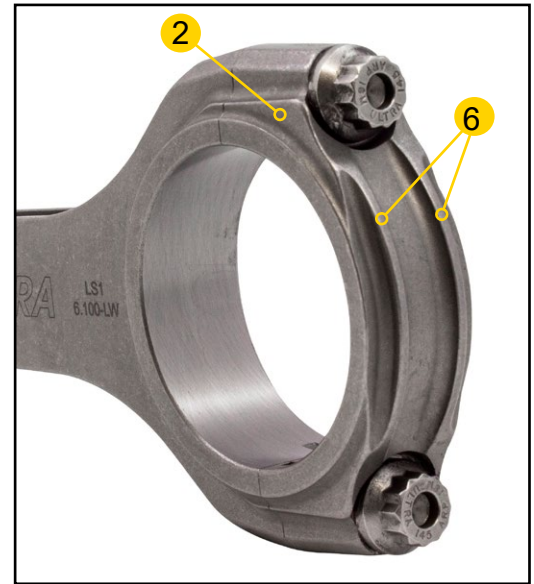


ULTRA H-Beam

- Ultra connecting rods are fastened by high alloy cap screws produced specifically for severe applications by ARP.
- Purpose built 260Ksi Ultra Bolts offer improved thread engagement for a smoother, more consistent net clamping load.
- To eliminate deformation and extrusion only Ampco 45 bronze silica alloy is used within the wrist pin housing bore. This material has a proven hardness more than 26% greater than commonly used Ampco 18 material.
- For high RPM or extreme horsepower applications, Ultra connecting rods are fitted with Custom Age bolts. These high strength alloy fasteners provide unparalleled clamping strength and toughness. Upgraded bolts are available for all Ultra I-Beam connecting rod configurations.

Ultra H-Beam Connecting Rod Design Features

1. Tapered big end outer profile creates a wider footprint outside of the bolt. This provides leverage to reduce bore ovality at the top of the exhaust stroke.
2. Extended big end gusset ties the bolt spotface and the bolt centerline together to promote equal distribution of clamping force.
3. Bolt threads are fully engaged in the rod.
4. Twin rib pin hoop provides excellent strength and roundness, while keeping the pin end weight to a minimum.
5. Pin bushings are made from superior quality Ampco 45 material.
6. Twin rib cap design ensures big end housing bore roundness.
7. Ample blade thickness provides center to center stability in both compression and tension.
8. Made from TimkenSteel 4330 material, and forged in Trenton, Michigan.



Ultra Connecting Rods



ULTRA **ASSASSIN** Diesel Rods

Like all Ultra connecting rods, Ultra Assassin diesel rods are made entirely in the USA, and are made from specially formulated 4330V TimkenSteel. This material is then precision forged in Michigan and machined in our Fostoria, Ohio facility. Assassin Series Rods are near net as forged with minimal machining. They are fastened by high alloy cap screws made specifically for severe duty service by ARP Inc. To eliminate deformation and extrusion only AMS 642 bronze alloy is used within the wrist pin housing bore.

Ultra Assassin: Power Stroke 6.0L 2003-2009

Length	Journal	Typ. Wt.	Part #
6.929	2.874	1,233g.	U13100



Dirt / Oval Track Rods

The Ultra Dirt rod design is focused on proper material distribution for high RPM, naturally aspirated applications. The beam features a **tapered width and a tapered blade thickness**, which allows robust big end bore geometry while reducing tensile load through reduced pin end mass.

Housing bore stability is further enhanced by utilizing 7/16" fasteners for increased clamping force. Bolts are available in 265 KSI Ultra as standard, or CA625 as an upgrade. These are forged in the USA out of 4330V TimkenSteel. Available in common big end and pin end bore sizes.

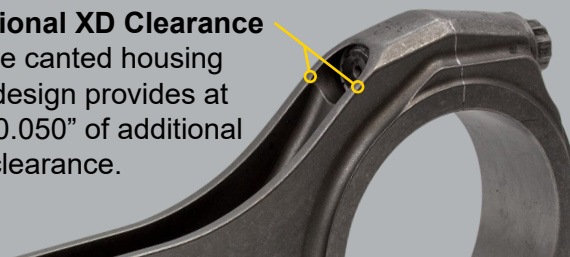
ULTRA



ULTRA XD

Additional XD Clearance

Unique canted housing bore design provides at least 0.050" of additional cam clearance.



The Ultra XD unique connecting rod design offers greater cam to connecting rod clearance. This innovation will allow the use of increased base circle cams for improved valve train performance, stability, and horsepower.

For the first time, engine builders are given greater flexibility in selecting valve train components when using a standard cam height block. The Ultra XD concept has been track tested and proven to be a reliable, long term solution to troublesome connecting rod to camshaft interference problems.

Ultra Connecting Rods



Ultra Chevy Part Numbers - Small Block													
Small Block - H Beam						Small Block - H Beam (DIRT STYLE)						Small Block - I Beam	
	Std	SJ	HJ	SJ-.866	XD	Std	SJ	SJ-Heavy	HJ	HJ/.866	SJ/.866/ .905W 3/8" Bolt		XD-ENF
5.700									U16327				
5.850	U16090	U16091					U16331	U16431	U16332	U16333	U16334		
6.000	U16100	U16101	U16102		U19135		U16336		U16337	U16338		U18235	
6.110	U16105												
6.125	U16110	U16111											U14240
6.200	U16120	U16121											U14245
6.250	U16125	U16126		U16127									
Ultra Chevy Part Numbers - Big Block													
Big Block - H Beam					H-I	Big Block - H Beam (DIRT STYLE)					Big Block - I Beam		
	Std			XD		Std	SJ				XD	XD-ENF	ENFORCER
6.385	U16200						U16350						U15210
6.480	U16205												
6.535	U16210						U16360						U15211
6.660	U16220												
6.700	U16230			U19114								U18214	
6.750	U16235												
6.800	U16240												
6.875					U15265								
7.100	U16250												
7.200	U16255												
Ultra LS Part Numbers													
LS - H Beams						LS - H Beam (Dirt Style)					LS - I Beam		
	Std	SJ	.866 Pin	.985 Pin		Std	SJ	SJ .905W					ENFORCER
6.100	U16290												
6.125	U16300	U16310	U16400										U17175
6.200							U16346						
6.250			U16450										
6.350	U16302												
6.460	U16301												
6.485							U16347	U16367					
6.560	U16304												
Ultra FORD Part Numbers - Small Block & Big Block													
Ford - H Beams								Ford - H (Dirt Style)			Ford - I Beam		
	Std	OEM Pin	.927 Pin	Std-.866	SJ-.866	HJ-.866	HJ-21mm	HJ-22mm	SJ-.866 No Bush .905W		Diesel		ENFORCER
5.400	U16600												
5.850				U16610	U16611	U16612	U16613	U16614					
5.933	U16605												U14925
6.000									U14856				
6.200	U16630												U14945
6.250	U16640												
6.300				U16615									
6.319	U16620	U16621											
6.350			U16625										
6.700	U16650												
6.800	U16660												
6.0L Diesel											U13100		
6.4L Diesel											U13105		
6.7L Diesel											U13110		
Chrysler-Hemi-Mopar Part Numbers													
Mopar H-Beams							Mopar H-Beam (Dirt Style)				Mopar I-Beam		
	Std												ENFORCER
6.200													U14345
6.300	U16130												

Standard Stock Offering	Premium Bolt Only (CA)
Custom	New Launches
Under Review	

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Last Revised 2/7/2025

Ultra Connecting Rods



Ultra Sport Series Part Numbers			
Enforcer - I Beam			
	C-Line	ENFORCER	Notes:
	5.590	U18100	Toyota 2JZ
	5.590	U18101	Toyota 2JZ-Honda Journal
	6.500	U15400	Nissan GTR
	6.500	U15401	Nissan GTR - BB Bore, Cust Pin
	6.500	U15405	Nissan GTR - BB Bore
	5.000	U15410	Nissan RB26
	6.000	U15415	Nissan RB30
	5.138	U16700	Subaru EJ20
	5.217	U16710	Subaru EJ20+2mm
	5.217	U16711	Subaru EJ20+2mm .927 Pin
	5.295	U16715	Subaru EJ20+4mm
	5.659	U16720	Mitsubishi 4B11
	150 mm	U16730	Mitsubishi 4G63
	153 mm	U16740	Mitsubishi 4G63
	156 mm	U16750	Mitsubishi 4G63
	5.655	U16800	Honda 5.655
	5.985	U16805	Honda 5.985 K24
	5.879	U14820	2.3L Ecoboost
	5.162	U16520	McLaren
	6.000	U17100	Lamborghini

H Beam			
	6.500	U16510	Nissan GTR - Tapered Pin End

Standard Stock Offering
Custom
Premium Bolt Only (CA)
Under Review
New Launches

Callies Ultra Connecting Rods are designed to work seamlessly with Callies crankshafts and finish ground camshafts.

- Optimized cross sections for excellent strength to weight ratio.
- Fastener threads are fully engaged – no exposed threads.
- Mating faces have edge breaks machined in to reduce prep work.
- Bearing tab slots shifted for better bearing edge clearance with large crankshaft fillet.
- Unique big end geometry maintains bearing housing roundness at high RPM.



Ultra rods are proudly made in the USA, from the premium materials to precision manufacturing at Callies facility in Fostoria, OH.

