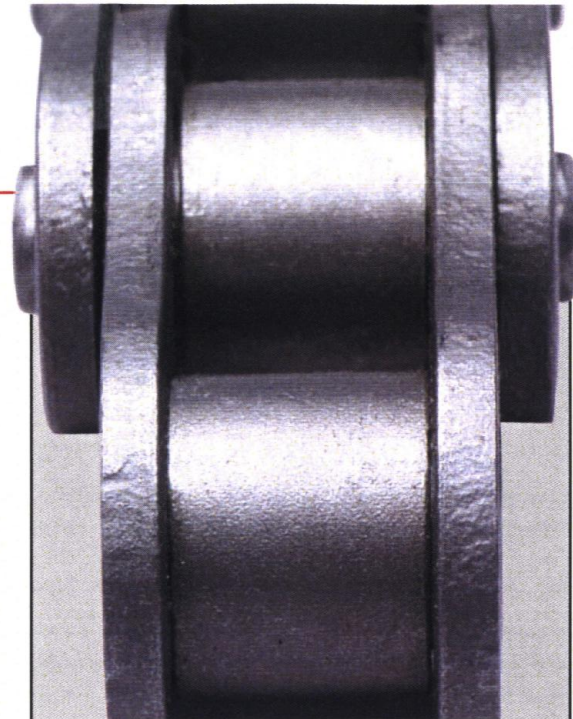


Hitachi Inspire Series™ SBR® chains are the highest rated standard roller chains in the world.



Summary:

- Greater resistance to fatigue failure resulted from compressive residual stress.
- Long wear life due to high hardness shell.
- Corrosion protection from proprietary stainless steel blast treatment.

Chain Size	Maximum Allowable Working Loads (lbs)			Chain Size	Maximum Allowable Working Loads (lbs)		
	Inspire Series™	Competitive	% Difference		Inspire Series™	Competitive	% Difference
35	560	480	16.7%	120	8,600	6,830	25.9%
40	950	810	17.3%	140	11,350	9,040	25.6%
50	1,650	1,430	15.4%	160	15,000	11,900	26.1%
60	2,250	1,980	13.6%	180	16,300	13,670	19.2%
80	4,150	3,300	25.8%	200	20,200	16,090	25.5%
100	6,400	5,070	26.2%	240	27,600	22,270	23.9%



“The highest rated standard roller chain in the world”



“Increased wear life and excellent corrosion resistance”



“Thirty times more corrosion resistance compared with nickel plate”



“An incredibly high strength stainless steel product”

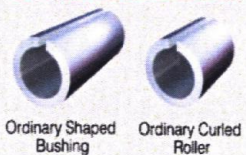


“A high strength maintenance free roller chain product”



“An economical standard performance roller chain”

CONVENTIONAL CHAINS



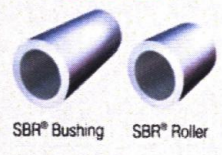
Ordinary Shaped Bushing Ordinary Curled Roller



Before Assembly After Assembly

Bushing ID becomes barrel shaped as a result of press fit and makes uneven contact between pin and bushing.

NEW SBR®



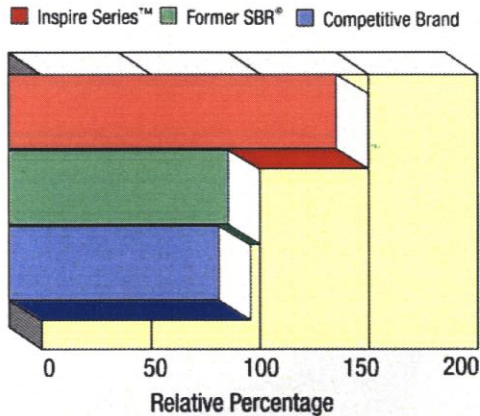
SBR® Bushing SBR® Roller



Before Assembly After Assembly

Solid bushings with tapered ends assure near perfectly straight ID surface after assembly. The ends collapse due to press fit resulting in ultra straight bearing surfaces.

Fatigue Strength



Compressive Residual Stress Zones

Compressive stress has long been known to improve fatigue strength. Sources of compression in existing chain products include shot peening, high interference fits between pins, bushings and side plates, and the carburized zone found on pins and bushings.

Our unique patent pending "Hi-Energy Mechanical Process" imparts substantial compressive stresses to the chain components (see chart right) resulting in a 45%-50% increase in fatigue strength. Horsepower ratings as well as the rated working loads are the highest in the world.

Triple Zone Hardness Wear Protection

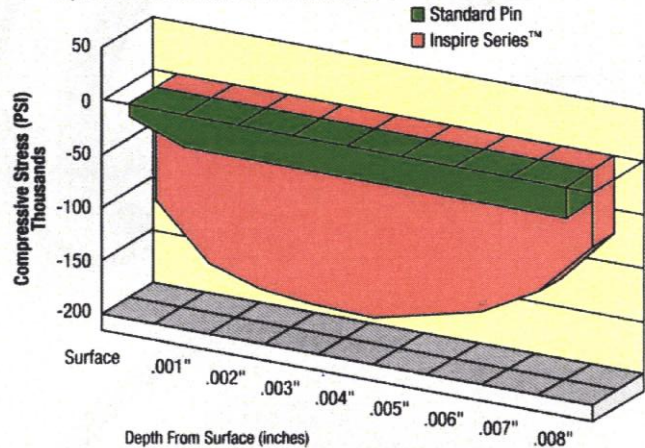
A residual, but important benefit of Hitachi's new "Hi-Energy Mechanical Process" is that an ultra-high hardness shell is developed on the surface of carburized pins and bushings. This effectively gives these wearing components three layers of hardness protection:

1. Ultra-high hardness shell (Black Zone - See Below)
2. High hardness carburized case (Blue Zone - See Below)
3. Core Hardness (Orange Zone - See Below).



Compressive Residual Stress Measurements

Inspire Series Pin vs Standard Carburized Pin



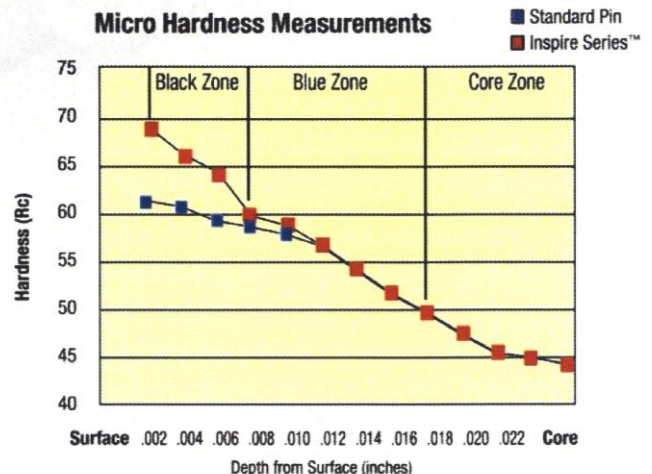
Compressive stress measurements. The deeper trough of the INSPIRE SERIES™ SBR® pin means that the part has more compressive residual stress and is therefore more resistant to fatigue failure. Link plates, rollers and bushings undergo the same treatment with similar results.

Stainless Steel Blast Treatment

Components of our new INSPIRE SERIES™ SBR® roller chains are coated with a film of stainless steel achieved through a proprietary blast treatment.

The film works with the high quality pre-lubricant to protect the chain from corrosive attack and extend life. The blast also gives the chain an enhanced silver color appearance.

Micro Hardness Measurements



Micro hardness measurements of the pins and bushings reveal an ultra-hard shell which fights chain elongation far better than can be achieved with conventional carburized parts