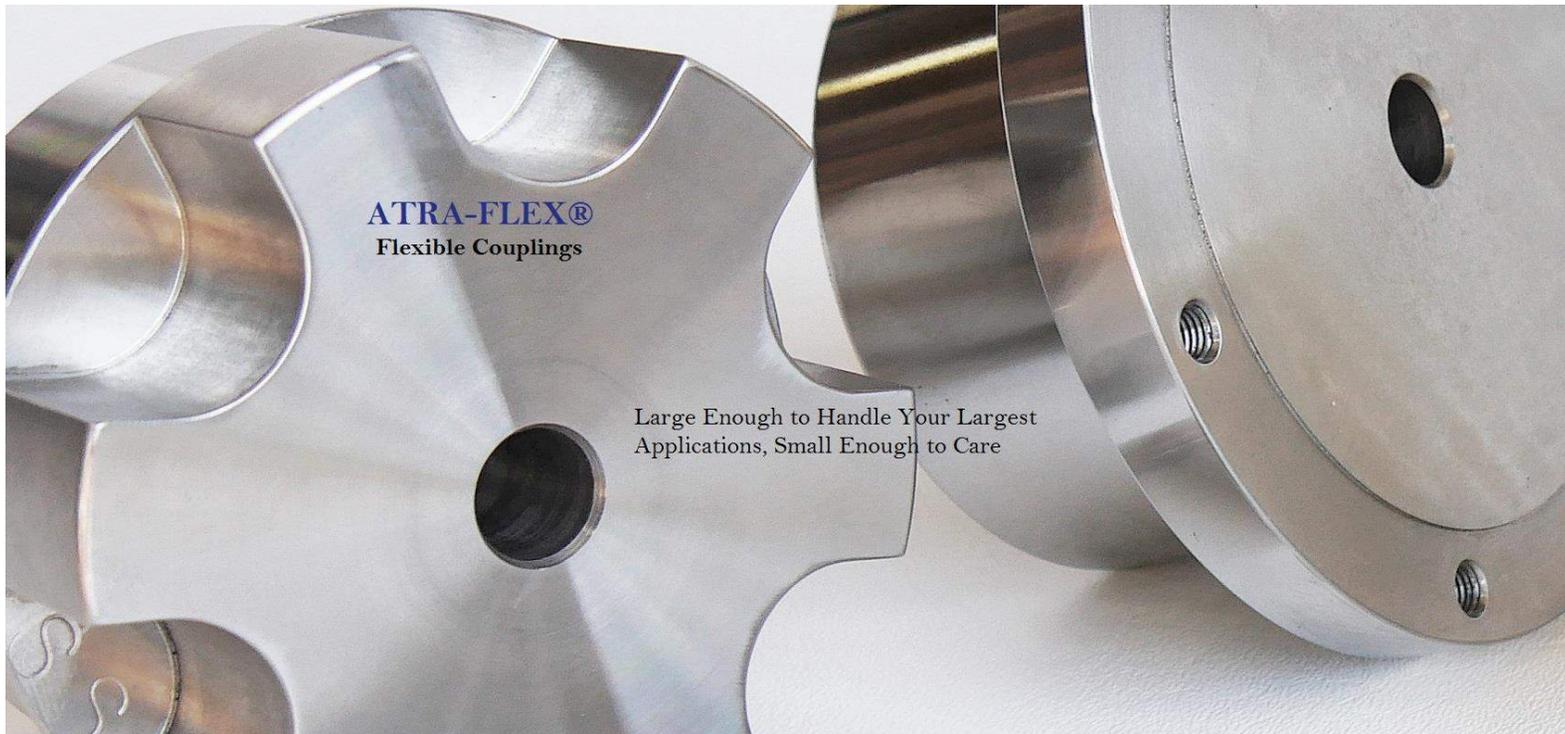


## Welcome to ATRA-FLEX® Elastomeric Flexible Couplings

Leaders in Design Technology offering quick, low cost solutions for rotating equipment, misalignment, end float and vibrational troubles in the Power Transmission Industry. Manufactured in the USA, we pride ourselves in using top quality, high strength materials that ensure longer life of your rotating equipment. ATRA-FLEX® has been proven to be the dependable choice for reliable long term solutions. We strongly focus on customer service and strive to deliver in a timely manner so that you can keep your operations moving.





ATR Sales Inc. is the proud manufacturer of ATRA-FLEX® flexible shaft couplings for rotating machinery, high speed and other demanding applications.

We produce couplings in the torque range of 85 lb/in continuous up to 3,610,000 lb/in. continuous

RPM range up to 20,200 Max (Balanced)

Horizontal and Vertical Application

No matter what your application demands are contact an ATRA-FLEX specialist to help determine the best suited coupling for your applications

## ATR Sales Inc. Corporate Office and Factory

110 E. Garry Ave Santa Ana, Ca 92707

1800-443-6613

Orders: Ruzelle Pamploma

Technical Support: Peter Zapata

General Manager/ Technical: Darin Martinez Cell: 714-403-9678

Sales Manager: Lisa Hauck Matilla Cell: 949-310-1220

[www.atra-flex.com](http://www.atra-flex.com)

# Innovation, Precision and Cutting Edge Technology

**ATRA-FLEX<sup>®</sup>** Flexible Couplings are proudly manufactured in the USA

- Standard hubs and rings are machined from Solid Carbon Steel rounds and tubing, maintaining tight tolerance's which maintains excellent coupling balance.
- Stainless steel in grades 303,304 and 316 are also available for corrosive environments and the food industry.
- We offer a cost savings alternative to Stainless steel with a Melonite<sup>®</sup> Process.

Melonite<sup>®</sup> process gives our solid carbon steel a uniform case hardening up to RC 62 which significantly prevents wear and corrosion.



## ATRA-FLEX® Millennium®



- Detect and Lock-On Ring Feature
- “Internal Support” of Insert for Higher Horse Power
- Higher Horse Power in a Smaller Package
- Large Bore Capacity
- No Exposed Shaft on Spacer Coupling
- Very Economical
- Torque Ratings up to 3,610,000lbs

Uniquely combines the stability of a compression type coupling with the safety of a shear coupling. In the event of a lockup, the insert will shear, minimizing the possibility of damaging your rotational equipment. No lubrication or routine maintenance is required. The rugged polyurethane insert is the only spare part and can be replaced in minutes without having to move the equipment or the shaft hubs. Standard inserts have a temperature range from -60° to 250° Fahrenheit with high temperature inserts available up to 350°. The inserts are available in a range of hardness to meet most torsional stiffness and torque requirements, and offers very high resistance to chemicals and weather.

ATRA-Flex® Couplings are manufactured in the USA. Standard hubs and rings are machined from solid carbon steel rounds and tubing, maintaining tight tolerances which provides excellent coupling balance. Stainless steels in grades 303,304 and 316 are also available for corrosive environments and food applications. We also offer a low cost alternative to stainless steel called Ferritic Nitro carburization. This process gives our carbon steel a uniform case hardening up to RC 62 and significantly prevents wear and corrosion. Inserts are made from durable custom compounded polyurethane that offer resistance to almost every fluid found in industry today.

## ATRA-FLEX® offers all these advantages

- Change out of coupling insert is faster than any other
- Custom Compounded polyurethane inserts provide elasticity and resistance to high torque, shear and shock loads
- Unlike others, a single ATRA-FLEX coupling can be purchased to fit two different shaft sizes
- Elastic insert is highly resistant to humidity, oils, corrosion and chemicals; retains performance characteristics at temperatures from 60°F to 250°F
- No lubrication or service is required
- Couplings have been known to run up to 70,000 hours or more with no signs of wear
- May be installed horizontally or vertically; can rotate in either direction.
- No metal to metal contact between coupling parts
- Initial cost is low and maintenance and downtime are minimal.
- High temperature inserts (RED) available up to 350°F

Available in Spacer Couplings, Limited End Float Couplings, Fly Wheel Couplings, Drop-Out Spacer Couplings, Floating Shaft Couplings, Split Taper Bushing Couplings

# ATRA-FLEX® T-FLEX® Patent # 7,244,186



**Severe Duty, Higher Performance Coupling, Absorbs Extreme Torsional Shock and Vibration, Suitable for Horizontal and Vertical Use, Reversing and Start –Stop Applications, Generates Less Reactionary Loads which Significantly Increases Bearing Life**

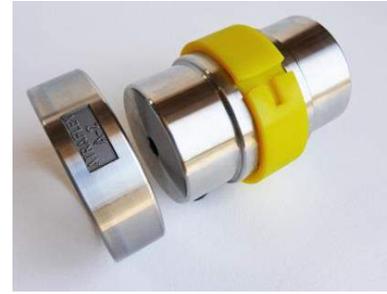
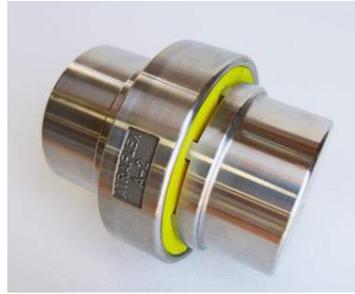
- Application Range T-Flex® coupling sizes available to transmit torque loads from 60 lb-in to over 1,570,000 lb-in with shaft capacities ranging from .375 to over 20.00 running from low rpm to over 18,000 rpm.
- Features Patented T-Flex® absorbs extreme torsional shock and vibration while accommodating angular, parallel, and axial misalignment without generating reactionary loads, which significantly increases bearing life. T-Flex® uniquely combines the stability of a compression type coupling with the safety of a shear coupling. In the event of a lockup, the insert will shear, minimizing the possibility of damaging your rotational equipment. No lubrication or routine maintenance is required. The rugged polyurethane insert is the only spare part and can be replaced in minutes without having to move the equipment or the shaft hubs. Standard inserts have a temperature range from -60° to 250° Fahrenheit with high temperature inserts available up to 350°. The inserts are available in a range of hardness to meet most torsional stiffness and torque requirements, and offers very high resistance to chemicals and weather. T-Flex® couplings are suitable for blind assembly, horizontal or vertical, reversing, and stop/start applications. The Compact size to torque ratio with generous bore capacity allows proper sizing. Hubs are available for use with tapered bushings, lock assemblies, shrink discs, finished bored and keyed, taper bored, and spline bored.

# T-FLEX®

- How It Works T-Flex® close coupled couplings consist of four parts. The Ring Hub, Flex Hub, Insert, and Drive Ring. The Ring Hub and Flex Hub are installed on the shafts with the Drive Ring fitting over the Flex Hub. After coupling alignment, the Insert is placed around the Flex Hub engaging the bottom lobes of the Insert. The Drive Ring is then fitted over the Insert engaging the top lobes of the Insert. The Drive Ring is then fastened to the Ring Hub using high strength alloy steel socket head cap screws with high collar lock washers. The coupling will now transmit torque with silent, smooth reliable, maintenance free operation.
- Manufacturing T-Flex® is manufactured in the USA. Standard hubs and rings are machined from solid carbon steel rounds and tubing, maintaining tight tolerances which provides excellent coupling balance. Stainless steels in grades 303,304 and 316 are also available for corrosive environments and food applications. We also offer a low cost alternative to stainless steel called Ferritic Nitro carburization. This process gives our carbon steel a uniform case hardening up to RC 62 and significantly prevents wear and corrosion. T-Flex® inserts are made from durable custom compounded polyurethane that offer resistance to almost every fluid found in industry today. Using T-Flex® ensures dependable, maintenance free torque transmission for your rotational equipment, and comes with product / technical support from our knowledgeable staff with over 25 years' experience.

**Coupling Types Available: Close coupled, Spacer types, Limited End Float, Slide, Floating Shaft, Flywheel, Brake Wheel, Brake Disc, and made to order engineered couplings.**

## ATRA-FLEX® A Series®



### ATRA-FLEX® Innovated, Others Followed

- Detect and lock on ring
- Non-lubrication or service required
- Easy replace in place insert
- Low reaction forces
- Shear protection
- Very economical
- Torque Ratings up to 570,000 (lb-in)

Uniquely combines the stability of a compression type coupling with the safety of a shear coupling. In the event of a lockup, the insert will shear, minimizing the possibility of damaging your rotational equipment. No lubrication or routine maintenance is required. The rugged polyurethane insert is the only spare part and can be replaced in minutes without having to move the equipment or the shaft hubs. Standard inserts have a temperature range from -60° to 250° Fahrenheit with high temperature inserts available up to 350°. The inserts are available in a range of hardness to meet most torsional stiffness and torque requirements, and offers very high resistance to chemicals and weather.

ATRA-Flex® Couplings are manufactured in the USA. Standard hubs and rings are machined from solid carbon steel rounds and tubing, maintaining tight tolerances which provides excellent coupling balance. Stainless steels in grades 303,304 and 316 are also available for corrosive environments and food applications. We also offer a low cost alternative to stainless steel called Ferritic Nitro carburization. This process gives our carbon steel a uniform case hardening up to RC 62 and significantly prevents wear and corrosion. Inserts are made from durable custom compounded polyurethane that offer resistance to almost every fluid found in industry today.

## **ATRA-FLEX®** offers all these advantages

- Change out of coupling insert is faster than any other
- Custom Compounded polyurethane inserts provide elasticity and resistance to high torque, shear and shock loads
- Unlike others, a single ATRA-FLEX coupling can be purchased to fit two different shaft sizes
- Elastic insert is highly resistant to humidity, oils, corrosion and chemicals; retains performance characteristics at temperatures from 60°F to 250°F
- May be installed horizontally or vertically; can rotate in either direction.
- No metal to metal contact between coupling parts
- Initial cost is low and maintenance and downtime are minimal.
- High temperature inserts (RED) available up to 350°F

**Available in Spacer Couplings, Limited End Float Couplings, Fly Wheel Couplings, Drop-Out Spacer Couplings, Floating Shaft Couplings, Split Taper Bushing Couplings**

# Keep Your Operation in Motion by Creating More “UpTIME”



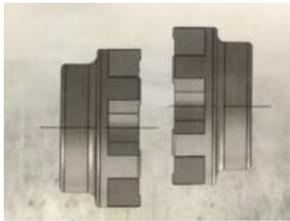
- The ease of replacing our custom, high quality compounded inserts will create more “uptime”.
- Replace in place design
- Once inserts shear there is no metal to metal contact and the driven coupling halves allow unrestrained end float.
- Saves you money on replacing new hubs

## ATRA-FLEX® Design Benefits

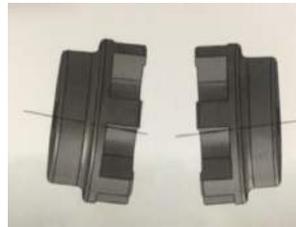
- Power is smoothly transmitted through a custom compounded polyurethane insert, which absorbs shock loads, dampens vibration, and electrically insulates the equipment while accommodating axial, radial, and angular misalignment with less reactionary loads on equipment
- ATRA-FLEX® couplings eliminate the need for lubrication, which significantly reduces coupling failures, maintenance and downtime commonly caused by insufficient lubrication of gear and grid couplings.
- Unlike greased couplings, which attract dust and dirt that often get trapped inside the working parts of the coupling can cause wear. Our polyurethane insert operates in practically every type of weather, temperature, and chemical common in rotational equipment applications. ATRA-FLEX® couplings have had up to 70,000 + running hours.

# One of the Largest Problems in Industry Today is MISALIGNMENT, Which Can Cost Rotational Equipment 50% – 70% of Its Life!!

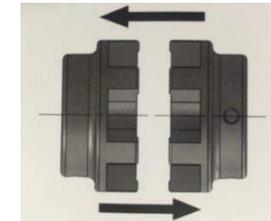
ATRA-FLEX® Elastomeric Flexible couplings will help save your operation money!



**Radial/Parallel**



**Angular**



**Axial**

1. The free movement of the ATRA-FLEX® insert accommodates parallel misalignment, and still maintains full shock and vibration damping.
2. ATRA-FLEX® insert allows the rocking and sliding action of the hubs under an angular misalignment, without any loss of power through the resilient adiprene insert.
3. ATRA-FLEX® insert allows unrestrained end float for both driving and driven members.

A flexible coupling is not designed to compensate for excessive misalignment. Its purpose is to permit slight movement of pump or driver shafts or any driven equipment while transmitting power. Excess misalignment can cause short coupling life due to sliding and working action of coupling connectors. Modern machinery operates at ever increasing speeds; even minor alignment errors lead to high vibration on bearing loads resulting in machinery damage and production downtime.

**ATRA-FLEX® Solves: Misalignment problems  
by a “fail safe” method.**

## ATRA-FLEX® Keeping the Industry in Motion



Downtime is critical. When your operation demands only the best turn to ATRA-FLEX® to get the job done.

Time and time again customers come to ATRA-FLEX® through recommendation or referral after they have had multiple failures and unplanned downtimes with their existing coupling choice. Once they experience the ATRA-FLEX® quality and solutions we provide we know we have the potential for a long term partnership. We are proud to have the reputation in the industry for providing real solutions. With over 36 years of commitment to quality and innovation we have established loyalty, trust, and reliability. Contact one of our experts and allow ATRA-FLEX® to serve you. You will soon be confident in knowing that you have made the right choice for protection of your driven equipment.

### Customer Service

### Innovation and Expertise

### Quality and Precision

- Bored to Size at no additional Cost up to size 5
- Choice of Bore Type
- Shaft Systems Available
- Custom Flanges, Lengths and Diameters
- Bores For Bushings
- Balancing

# Looking for Cost Savings?

We Continually Strive to Meet Customers' Needs.

MELONITE™ Process offers a significant cost savings and alternative option to Stainless Steel



- Increased surface Hardness
- Lower coefficient of friction
- Enhanced surface lubricity
- Improved running wear performance
- Enhanced corrosion resistance

ATRA-FLEX® is proud to Offer MP. The MP stands for MELONITE™ Process. This process is available as an option with our complete coupling line to provide corrosion and wear resistance. This process has been proven in the field to prevent corrosion caused from applications in wet or chemical environments as well as wear and fretting due to misalignment and vibration. It is a low cost alternative to stainless steel suitable for marine applications.

MELONITE™ is a thermochemical treatment for improving surface properties of metal parts. It exhibits predictable and repeatable results in the treating of carbon steels resulting in superior corrosion and wear properties as well as increasing rotating fatigue strength. During the process, which takes place between 900F and 1075F, the metal surface is enriched with nitrogen and carbon. A two-part nitride layer consisting of a monophasic compound layer and diffusion layer is formed. Total depth ranges from .008-.040". Hardness in the compound layer is increased to an average of 57.6 Rockwell C. The end result of this process creates a black matte finish that unlike black oxide will never wear off.

\*\* MELONITE™ is a registered trademark and is not affiliated with ATR Sales Inc. or ATRA-FLEX® other than supplying this nitro carburization Process.

# Non- Lubricant Flexible Coupling vs. Gear and Grid Couplings



## ATRA-FLEX® ADVANTAGE

### Design Benefits to using a NON-Lubricated Flexible Coupling

Increasing EPA regulations on lubricants and disposal, along with the downtime associated with them is becoming a growing concern. They can be replaced with [ATRA-FLEX®](#), and standardized with confidence, knowing [ATRA-FLEX®](#) has a coupling to fit the application and will design and get it therein order to keep things turning.

- No metal to metal contact between driving and the driven coupling halves allow unrestrained end float.
- Power is smoothly transmitted through a custom compounded polyurethane insert, which absorbs shock loads, dampens vibration, and electrically insulates the equipment while accommodating axial, radial, and angular misalignment with less reactionary loads on equipment
- [ATRA-FLEX®](#) couplings eliminate the need for lubrication, which significantly reduces coupling failures, maintenance and downtime commonly caused by insufficient lubrication of gear and grid couplings.
- Unlike greased couplings, which attract dust and dirt that often get trapped inside the working parts of the coupling can cause wear. Our polyurethane insert operates in practically every type of weather, temperature, and chemical common in rotational equipment applications.
- The [ATRA-FLEX®](#) insert is the only spare coupling part needed. It is designed to shear in the event of an equipment lock up or severe coupling overload, acting as a fuse to prevent damage to the equipment. It can be replaced in minutes, minimizing downtime and simplifying inventory.

# Tire Style Coupling Comparison

## ATRA-FLEX<sup>®</sup> Millennium<sup>®</sup>, T-Flex<sup>®</sup>, A Series<sup>®</sup>



ATRA-FLEX<sup>®</sup> Millennium<sup>®</sup>, T-FLEX<sup>®</sup>, and A Series<sup>®</sup> couplings transmit rotational torque from one hub (shaft) to the other in shear not physically attached to each other.

## VS. Tire Style Coupling



The two tire style couplings transmit torque in shear physically attached to a flexing rubber or urethane.

## ATRA-FLEX<sup>®</sup> Advantages

- Smaller overall outer diameter, transmits greater torque in smaller package. No guard modifications to retrofitting from lubricated couplings.
- Precision machined hubs, no casting or forged steel hub parts.
- No fasteners on close coupled versions
- Reduced moment of weight by flange and twist center moved closer to bearings. Not hanging greatest weight and twist in center of shaft ends on spacer couplings.
- No misalignment forces due to no physical connection of hub to flexing element.
- No axial loading (shafts being drawn together) due to tire outer diameter growth
- Simple element replacement
- Drop out spacer to existing shaft hubs
- Element retained by outer ring. No steel to urethane bonding or fasteners to fail.
- Superior rotational stability. No unrestrained elastomers causing vibration or adverse forces on connecting shafts.
- Upon element failure all elastomer is retained behind ring.
- Competitive costing of replacement element.

## Mission Critical Solutions on Rapid Timelines



Large Enough to Handle Your Toughest Applications, Small Enough to Care

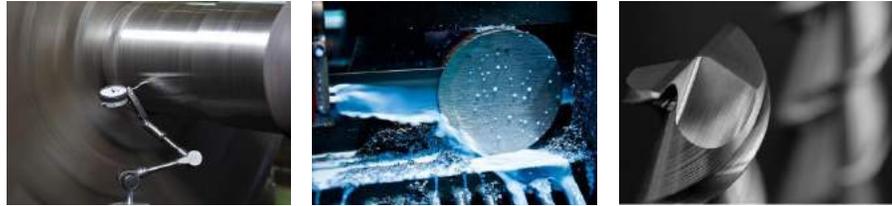
When 6-10 week wait time is unacceptable you need to choose a company that is Solution and Customer Driven

Downtime is Critical and ATRA-FLEX understands that every minute counts

Manufactured in the USA and recognized as innovators in the industry, we pride ourselves in being able to implement mission critical solutions on rapid timelines. Downtime can be costly. When 6-10 weeks wait time is not acceptable, customers have come to know and trust the **ATRA-FLEX**<sup>®</sup> commitment to working around the clock to meet their needs. Our focus and dedication to customer satisfaction allows us to adjust our normal production flow to accommodate your downtime crisis when the competitors cannot.

**ATRA-FLEX**<sup>®</sup> specializes in providing customer service and design solutions when needing any type of retrofitting or customization. We have a strong focus in building long term partnership in order to provide your operations with the best protection for your rotational equipment.

# ATRA-FLEX® Flexible Couplings Equates to Maintenance Dollars Saved



Savings in Manpower and Downtime, Easy Installation, Economy and Long Term Trouble –Free Service

## 1. The number one problem in industry today is DOWNTIME!! ATRA-FLEX is the Solution.

ATRA-FLEX inserts can be changed within minutes without moving hubs.

ATRA-FLEX cannot self-destruct (no metal to metal contact).

ATRA-FLEX hubs do not wear (never have to replace complete coupling).

ATRA-FLEX has no screws, bolts, or nuts to shear off causing longer DOWNTIME or complete coupling replacement. Not to mention safer operation!

ATRA-FLEX requires no lubrication, thus eliminating DOWNTIME to lubricate couplings.

ATRA-FLEX is in shear-protection for lock-ups. No more twisting off shafts or any other damage to equipment. Thus eliminating more DOWNTIME!

ATRA-FLEX does not generate thrust loads, thus eliminating DOWNTIME to replace bearings.

ATRA-FLEX is inherently balanced, thus eliminating DOWNTIME do to vibration.

## 2. The second largest problem in industry today is MISALIGNMENT, which can cost rotational equipment 50% – 70% of its life!! ATRA-FLEX is the Solution.

ATRA-FLEX design is easy to align. All surfaces are machined. Six and eight wings provide reference points in 360 degrees.

ATRA-FLEX has a built in safeguard for gross misalignment. If ATRA-FLEX'S alignment tolerances are exceeded the ring will walk off the insert physically indicating that the coupling is grossly misaligned. This feature alone can save thousands of maintenance dollars!!

## 3. Standardization ATRA-FLEX is the Solution.

ATRA-FLEX ranges from fractional horse power to 30,000 plus horsepower and up to a 16 inch shaft. This range covers most applications.

ATRA-FLEX offers a complete line of couplings to meet your most difficult applications. Including spacer, floating shaft, limited end float (patent), slide couplings (patent), flywheel and many other custom designs.

ATRA-FLEX insert's average life is 70,000 – 80,000 working hours.

ATRA-FLEX has two models of inserts Yellow for temperatures up to 200 degrees Fahrenheit and Red for temperatures up to 350 degrees Fahrenheit.

ATRA-FLEX insert is the only spare part, thus decreasing large inventory requirements.

ATRA-FLEX is available in stainless steel.

ATRA-FLEX has custom compounded polyurethane inserts to provide elasticity and resistance to high torque shear and shock loads dampening.

ATRA-FLEX is distributed throughout North America and many other parts of the world.