



# BARTEK PTM REBAR SPLICE SYSTEM





# MECHANICAL SPLICING

The Bartek PTM Rebar Splice System is a parallel threaded mechanical splicing system for the connection of reinforcing bars from 12 to 40mm, it is designed and manufactured to meet or exceed the requirements of major international standards such as: AS 3600, AS 5100, ISO 15835, Eurocode2, BS 8110, DIN 1045, ACI 318, IBC, AASHTO, ASME Sec III Div 2.





Fully Automatic, compact but powerful upsetting machine.



Fully Automatic Thread cutting machine with CNC technology.



# Why a Mechanical Splice?

Due to the growing technical challenges in construction industry, traditional methods for connecting rebar, such as lapping or welding, is no longer the first choice. More and more construction codes prefer mechanical splice because it provides better structural integrity while minimizing costs.

A lapped splice is dependent on the concrete quality for load transfer so any degradation of the concrete will significantly affect the performance of the splice. With mechanical splices, the load transfer is conducted by the mechanical coupler so it's independent of the concrete for the load transfer, which greatly increases the integrity of the structure.

# Performance

- The splice works just like a continuous piece of rebar.
- Offers greater strength than lapping with better reliability.
- Provides full ductility independent of concrete conditions.

### **Design & Planning**

- Greater flexibility in design preferred by the designers.
- Rebar congestion reduced and steel-toconcrete ratio improved.
- More efficient design results in smaller and stronger structure.

### Economical

- No more lapping lengths needed, rebar waste minimized.
- Easy and quick installation accelerate the construction with improved efficiency.
- Less experienced labor required and labor costs reduced.

# Additional Advantages from Bartek PTM Rebar Splice System

- No reduction of rebar cross section area, full rebar strength maintained.
- Standard ISO Parallel thread of great compatibility for connection with other items.
- One standard coupler suitable for most splicing requirements.
- The state of the art Machinery we have developed ensures the thread made on the rebar is the same high quality as the couplers we supply.





# BARTEK PTM STANDARD COUPLER

The Bartek PTM Standard Coupler is the basic coupler in our forging and threading splice system and it's suitable for both standard splice as well as position splice. A optional lock nut is available in case both rebar are impossible to rotate.



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Code	Rebar Size	Thread Size M	Thread Pitch P	Coupler Outer ØD	Coupler Length L
	mm	mm	mm	mm	mm
PT12CM	12	14	2.0	20	30.5
PT16CM	16	20	2.5	27	43
PT20CM	20	24	3.0	32	51
PT24CM	24	30	3.5	40	64
PT28CM	28	33	3.5	45	71
PT32CM	32	36	4.0	50	77.5
PT36CM	36	42	4.5	58	90.5
PT40CM	40	45	4.5	62	97

Coupler Code	Rebar Size	Thread Size M	Thread Pitch P	Nut Outer ØD	Nut Thickness t
	mm	mm	mm	mm	mm
PT12LNM	12	14	2.0	20	7
PT16LNM	16	20	2.5	27	8
PT20LNM	20	24	3.0	32	10
PT24LNM	24	30	3.5	40	12
PT28LNM	28	33	3.5	45	13
PT32LNM	32	36	4.0	50	14
PT36LNM	36	42	4.5	58	15
PT40LNM	40	45	4.5	62	16



# Features

- Applicable for high strength reinforcing bars up to ASTM Grade 75.
- Conforms to the latest version of IBC, ACI 318, CSA A23.3, BS8110, NF35-20 and DIN 1045.
- Extra lead-in chamfer aids in guiding the secondary bar more easily to the start of the coupler thread meaning easier installation and therefore higher productivity.
- Highly reliable and consistent performance owing to our strict quality control program.
- Compact design to reduce reinforcement congestion at connections.

# **Main Application**

Bartek PTM standard coupler is the basic coupler in our forging and threading rebar splice system, it's the most common coupler and suitable for most of situations. It can work with a lock nut as a solution when the rebars are not free to rotate or move.

All our couplers are made from high strength/precision tube and produced on our automatic production line, ISO 9001 certified facility.

# **3 TYPES OF SPLICE**

# 1. STANDARD SPLICE

# Application

The most common splice, it works as long as one bar is free to move and rotate.



1. Screw the coupler on to Bar A.

### Configuration

The standard splice uses a standard coupler, both rebars are upset and thread cut the same with standard thread length.



2. Screw Bar B into the coupler and tighten Bar B.



# 2. POSITION SPLICE

### Application

When both bars are difficult to rotate, or bars are even difficult to move after it's set in position.



1. Bar A fixed, Bar B with coupler already fully screwed on, align Bar B to Bar A.

# Configuration

The position splice uses a standard coupler too, Bar A with standard thread length while Bar B with thread length extended on the ribs to full length of the coupler.



2. Screw the coupler out of Bar B and on to the Bar A.

*3. Tighten Bar B to secure the connection.* 

# 3. POSITION SPLICE WITH LOCK NUT

#### Application

Both bars are impossible to rotate, such as the bars are bent or must be in a specific orientation.



1. Bar A fixed, Bar B with coupler and nut already fully screwed on, align bar B to bar A.

#### Configuration

The position splice uses a standard coupler plus a lock nut, Bar A with standard thread length while Bar B with thread length extended on the ribs to the full length of the coupler plus the nut.



2. Bar B can't be rotated, Screw the coupler and nut out of Bar B and on to the Bar A, finally tighten the nut to lock.





# BARTEK PTM TERMINATOR

The Bartek PTM Terminator provides a mechanical anchorage for the rebar in concrete. It replaces hooked bars as end anchorage and works better in congested areas as the lapping length is reduced.



PT36TM

PT40TM

36

40

42

45

4.5

4.5

58

62

116

130

42

45

Bartek PTM Terminator is hot forged with a bearing area 10 times the cross sectional area of the reinforcing bar. Thanks to Hot-Forging, it's compact and light weight in comparison to traditional flat head type and easy for installation with its small neck diameter.

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