

## BARTEK BP REBAR SPLICE SYSTEM





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Combining our crimping technology and BP series couplers, we developed our own crimper to crimp the coupler on the rebar. The process compresses the coupler around the profile of the rebar and the rebar rib even cuts into the coupler material to create a secured mechanical interlock that is greater than the rebar strength itself.













#### **Performance**

The crimping process does not reduce the sectional area of the rebar and even the rebar itself remains intact to ensure the ultimate capacity of the rebar is maintained. The interlock between the rebar and the coupler is permanent so it's even good for seismic loads.

The sectional area of the thread on BP couplers is greater than that of the rebar, the additional capacity of the coupler strength meets the high performance requirements in areas subject to effects of seismic activity and dynamic situations.

#### **Applications**

Thanks to the nature of the permanent interlock from the crimping process, the BP rebar splice system is designed and manufactured in accordance with most of the popular standards such as AS 3600, AS 5100, ISO 15835, Eurocode2, BS 8110, DIN 1045, ACI 318, IBC, AASHTO, ASME Sec III Div 2. etc. and suitable for use in stadiums, bridges, dams, power plants and high-rise buildings for normal and seismic loads.





## BARTEK PTM STANDARD COUPLER

The crimping tech is the key of the system, instead of using a 3rd party universal-purpose press (mostly crimpers for hose industry), we developed our own crimping machine which makes the crimping much faster and most of all much more accurate. The Precise metering system controls the crimping accuracy to 0.1 mm for the best interlock between the rebar and the coupler, combining the improved coupler material property, our system ensures the high performance as well as reliability.



### **4th Generation Crimping machine**

- Improved crimping mechanism greatly increases the pressing precision.
- Max. 2,500T crimping force completes the crimp of a 40mm rebar coupler in 15 sec.
- Accurate Crimping thanks to the precise metering system.
- Easy dies change thanks to the programed data for all sizes and types of couplers.

#### **Easy pre-fabrication**

- No painful thread cutting or rolling on the rebar any more.
- Just a clean and precise crimp completes the splice preparation
- Screw the male bolt into the female, no torque wrench required.

### **Quality assured**

- Manufactured under strict quality assurance plan, ISO 9001 certified.
- Full traceability of the couplers in production.
- Full traceability of each crimp on the crimper, records can be export for QC.



## FEATURES & SPECIFICATIONS

#### **Features**

- 1. Live crimping monitoring. The crimping dimensions are measured live, warning will be given immediately if the crimped dimensions fall out of the required range.
- 2. Position of the rebar stopper is servomotor driven and software controlled, no more manual adjustments needed, higher efficiency.
- 3. Simple operation, quick to switch from one size to another thanks to the pre-set data in our smart crimping database, just change the dies and rebar stopper while all the other adjustments such as the positioning and crimping force are all set by software.
- 4. Powerful and quick crimping, the crimping for 40mm rebar takes only 15 seconds.
- 5. Improved crimping mechanism, the crimping movement is well controlled in its path and the crimping force is evenly distributed, higher pressing precision.
- 6. Optimized hydraulic system, reduced cycle time for each crimping.
- 7. V shape dies ensure the pressing force is in the center of the pressing mechanism, better pressing performance and longer life of dies.
- 8. Data input and adjustments all on touch screen, live animation of the crimping process.
- 9. Full traceability: the crimping data of each coupler is stored in the system and easy to export via data cable or Internet.

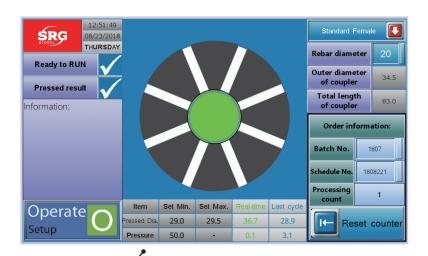
Description	Data
<b>Crimping Performance</b>	
Crimping Force	2500 Tons (max.)
Outer diameter of couplers	Ø16-Ø70
Rebar sizes	10mm to 40mm
Hydraulic System	
Hydraulic work pressure	25 Mpa (max. 31 Mpa)
Pump Motor	11 kw
Oil Type	46# Hydraulic oil
Oil tank volume	800 L
Cooling system	Air cooling and water cooling
Automation & Software	
Crimping force control	Automatic
Crimping Dimension control	Automatic
Position stopper for coupler and rebar	Automatic
Crimping records	Up to 10,000 records
Firmware & software update	Via Internet with 4G module
Miscellaneous	
Power supply	380V/50Hz
Machine weight	2300 kgs (without oil)
Machine dimensions	1610 x 1370 x 1480mm





# SOFTWARE ADVANTAGES

The 10" touch screen displays all the information of the machine as well as acts as the interface of the operation. Easy for operation and setup of the machine.





### **Software Highlights**

- 1. To switch from one type or size of coupler to another, just choose the desired type and size then all the setup required will be displayed to guide the operator to set up the machine correctly.
- 2. For each crimping, the live crimping process is displayed and the crimping result will be verified, if failed to meet the range required, warning will be given.
- 3. Crimping records are stored with all the information for each pressing, including the batch No., work No. and crimping results. The data can be export to keep a good track of all the jobs.
- 4. Special requirements of our customers can be easily addressed by remote firmware update in case any new demand requested.

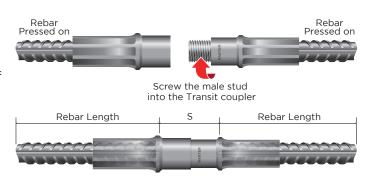


# BARTEK PTM STANDARD COUPLER





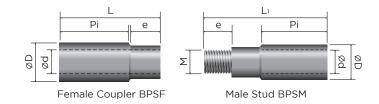
The BPS coupler is composed of a female and a male coupler, crimped on 2 rebars to be connected. With its high performance it ensures the ultimate tensile and compression strength of rebar can be fully applied with no compromise, satisfying all the major industry standards such as AS 3600, ISO 15835, Eurocode2, BS 8110, DIN 1045, ACI 318, IBC, AASHTO, ASME Sec III Div 2.



#### **Features**

- Applicable for high strength rebar up to AS/ NZS 4671 Grade 500N/E.
- Easy and highly efficient for both preparing the splice and assembly at site.
- Accurate splice length control thanks to the precise coupler joint.
- Highly reliable and consistent performance thanks to our crimping tech and improved design of the couplers

The BPS coupler is a standard splice, widely used for general applications such as beams, walls etc., where the rotation and axial movement of one rebar is allowed.



Code	Rebar Size	Thread Size	Outer Dia.	Inner Dia.	Female Coupler Length	Male Coupler Length	Thread Length	Rebar Insertion Length	Splice Space
		M	ØD	Ød	L	Li	е	Pı	S
	mm	mm	mm	mm	mm	mm	mm	mm	mm
BPS12	12	16 x 2.0	21.0	15	52	67	18	34	35
BPS16	16	20 x 2.5	28.0	19	67	86	22	44	44
BPS20	20	24 x 3.0	34.0	24	83	106	27	55	53
BPS24	24	30 x 3.5	42.5	29	100	127	31	67	63
BPS28	28	33 x 3.5	48.0	33	111	141	34	76	67
BPS32	32	39 x4.0	54.0	38	125	158	38	86	76
BPS36	36	42 x 4.5	61.0	42	142	179	42	97	84
BPS40	40	48 x 5.0	67.5	47	157	199	48	106	96



## **BPB BRIDGE** REBAR SPLICE

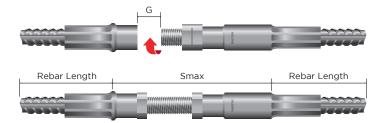




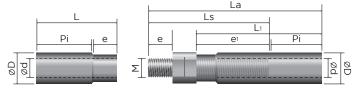
The BPB is composed of a female coupler and an extended coupler assembly, pressed on 2 rebars to be connected. Thanks to the improved design, it's one of the easiest and most reliable solution for positioning and gap covering, offers the high performance and ensures the ultimate tensile and compression strength of rebar can be fully applied with no compromise,

#### **Features**

- Remarkable gap coverage to make the rebar cage connection easy and accurate.
- Applicable for high strength rebar up to AS/ NZS 4671 Grade 500N/E.
- Easy and highly efficient for both preparing the splice and assembly at site.
- Highly reliable and consistent performance thanks to our special crimping tech.



Suitable for the most challenging connection where the rebar must be positioned accurately and can't even be rotated such as in a cage, Plus the ability to cover the deviation of one rebar size (G), it makes the cage connection easy and accurate. The rebar remains in its position and no rotation or movement is needed for either rebar while the gap is covered.



Female Coupler BPSF

Extended Male Assembly BPBM

Code	Rebar Size	Thread Size	Outer Dia.	Inner Dia.	Female Coupler Length	Thread Length	Rebar Insertion Length	Extended Coupler Length	Ex. Female Thread Length	Central Bolt Length	Max. Gap	Max. Splice Space
		M	ØD	Ød	L	e	Pi	Lı	<b>e</b> 1	Ls	G	Smax
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
BPB12	12	16 x 2.0	21.0	15	52	18	34	80	46	77	12	109
BPB16	16	20 x 2.5	28.0	19	67	22	44	103	58	96	16	137
BPB20	20	24 x 3.0	34.0	24	83	27	55	126	71	117	20	167
BPB24	24	30 x 3.5	42.5	29	100	31	67	152	85	140	25	200
BPB28	28	33 x 3.5	48.0	33	111	34	76	168	92	150	28	216
BPB32	32	39 x4.0	54.0	38	125	38	86	191	104	172	32	245
BPB36	36	42 x 4.5	61.0	42	142	42	97	213	116	190	36	274
BPB40	40	48 x 5.0	67.5	47	157	48	106	238	131	215	40	308



## **BPT TRANSITION** REBAR SPLICE

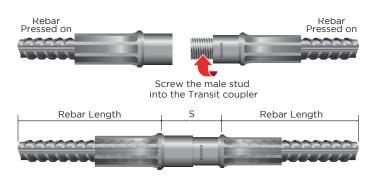




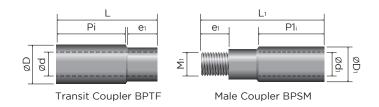
The Transition coupler is used to connect rebars of different diameters. The BPT is similar to BPS but with a smaller sized male coupler to receive the smaller size rebar. With the same high performance it ensures the ultimate tensile and compression strength of both the rebars of different diameters can be fully applied with no compromise, satisfying all the major industry standards such as AS 3600, ISO 15835, Eurocode2, BS 8110, DIN 1045, ACI 318, IBC, AASHTO, ASME Sec III Div 2.

#### **Features**

- Connect rebars of different diameters, easy, fast and accurate.
- Applicable for high strength rebar upto AS/NZS 4671 Grade 500N/E.
- Highly efficient for both preparing the splice and assembly at site.



Suitable for the connection of 2 rebars of different sizes, where the rotation and axial movement of one re bar is allowed.

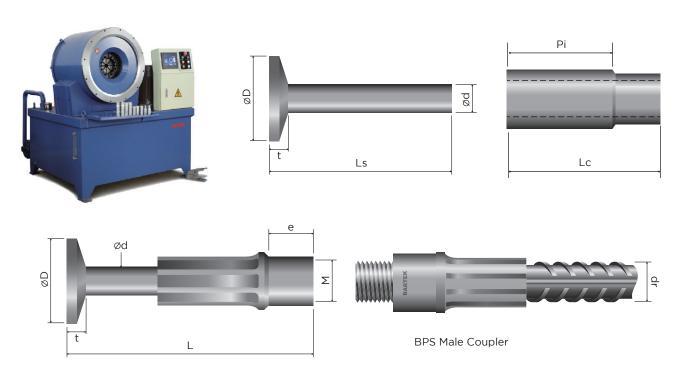


Re		Female	e Coupler		Male Coupler				Splice			
Code	Size (Bar A to Bar B)	Thread Size	Thread Length	Outer Dia.	Inner Dia.	Coupler Length	Rebar Insertion Length	Outer Dia.	Inner Dia.	Coupler Length	Rebar Insertion Length	Space
	·	Mı	<b>e</b> ı	ØD	Ød	L	Pi	Ø <b>D</b> 1	Ødı	Li	P1i	S
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
BPT16-12	16-12	16 x 2.0	18	28.0	19.0	64	44	21	15	67	34	35
BPT20-16	20-16	20 x 2.5	22	34.0	23.5	81	55	28	19	86	44	44
BPT25-20	25-20	24 x 3.0	27	42.0	29.2	100	67	34	24	106	55	53
BPT28-24	28-24	30 x 3.5	31	48.0	33.0	110	76	43	29	127	67	63
BPT32-24	32-24	30 x 3.5	31	54.0	37.5	125	86	43	29	127	67	63
BPT32-28	32-28	33 x 3.5	34	54.0	37.5	125	86	48	33	141	76	67
BPT36-28	36-28	33 x 3.5	34	61.0	42.0	139	97	48	33	141	76	67
BPT40-32	40-32	39 x 4.5	38	67.5	46.5	152	106	54	38	158	86	76



# BP STUD INSERT

The stud, with a foot of sectional area 10 times the rebar, is crimped on the standard BPS female coupler to function like a insert to receive the BPS male coupler of the other rebar.



#### **Features**

- 1. Easy and fast connection with male bar (rebar with male coupler crimped on).
- 2. Standard BPS coupler to be crimped on the stud, the specific insert length can be achieved by various stud length, flexible and highly efficient production.

Code	Rebar Ø = Stud Shank Ø	Thread	Total Length	Head Dia.	Thread Depth
	Ød	M	L	ØD	e
	mm	mm	mm	mm	mm
BPS12I	12	M16	105	38	17
BPS16I	16	M20	115	51	22
BPS16IL	16	M20	160	51	22
BPS16IXL	16	M20	190	51	22
BPS20I	20	M24	145	63.5	26
BPS20I	20	M24	190	63.5	26
BPS20IL	20	M24	220	63.5	26
BPS24I	24	M30	190	76	31
BPS28I	28	M33	220	89	33
BPS32I	32	M39	240	102	37





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