

BRC ARABIA (LLC)



Construction Reinforcement Steel



Introduction

BRC ARABIA (LLC) was originally established in SAIF ZONE, Sharjah in December, 1996, under the name of BRC ALFADL REINFORCING LTD. In 2005, the name changed to **BRC ARABIA (FZC)**. In December, 2009, **BRC ARABIA (LLC)** was established in Dubai Industrial City (DIC), where it started its full operation in November, 2011 with a Branch office in **Abu Dhabi**.

Since July, 1997, BRC has been, continuously, supplying UAE market and the Gulf States Markets with quality products. The drive behind relocation of its operation to DIC-Dubai was to expand its operations and to better service these markets.

The Management and production team have long experience in the Industry of Steel Reinforcement Fabrication of Cut & Bent, Welded Wire Mesh, Cold Drawn Wires and Steel Rebars Threading. Most of the team joined BRC ARABIA from inception as they were recruited from the Partners Companies who had been operating similar industries for decades.

From 1997, BRC has been contributing to the development of Reinforcing Steel Fabrication in UAE. It had supplied its products to many major projects including: **Infrastructure, Power Plants, Industrial and Oil Complexes, Commercial and Residential Towers and Housing Projects.**

The New Plant at Dubai Industrial City is a World Class facility of about 11,000 M² built-up area on a 30,000 M² Plot. It is equipped with the best Brand Equipment capable of producing top quality products. The Management and production operate under the Quality Management System ISO 9001:2000 – since August, 2001. BRC Quality Management System was upgraded to ISO 9001:2008 from October, 2010.

To meet the products quality standard, BRC ARABIA purchases its Steel Rebars and Wire Rods, from well known regional Mills and occasionally from International Mills.

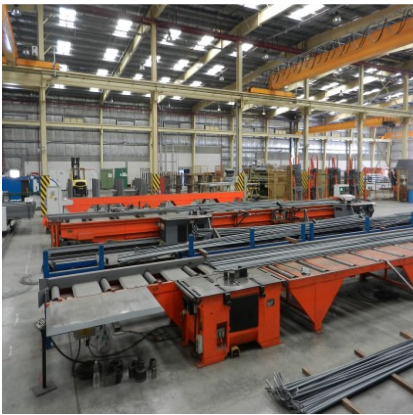
LOCATION MAP OF BRC ARABIA LLC



BRIEF ON BRC ARABIA (LLC)



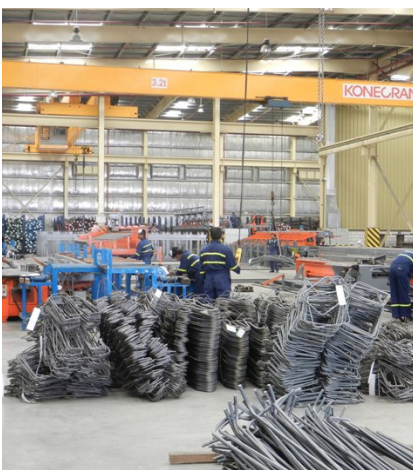
BRC ARABIA (LLC) started operation at the new state of arts facilities at Dubai Industrial Park, Seih Shuaib3 – Dubai in November 2011. The facilities are located in the Metals Zone, on a Plot of 30,000 m² with a total built-up area of 11,600 m² consisting of : Storage, Production Facilities and Offices. (Previously named BRC ARABIA FZC, established and operated in Sharjah Airport Free Zone, since December, 1996)



The production facilities are equipped with Modern Automated / Computerized Machineries and EOT Cranes, to produce efficiently high quality products. The management and Production Staff, have extensive expertise in the Industry. The Company can produce and supply, a comprehensive Concrete Reinforcing Steel Solution for all types of Construction and to the Precast Concrete Industries, from the range of products:



- Cut & Bent Steel Rebars
- Welded Wire Mesh
- Cold Rolled/ Drawn Steel Wires
- Rebar Threading with Joint Couplers
- Rebar Trading



BRC ARABIA (LLC), has the capacity and capabilities to produce Standard and Engineered products to suit all reinforcement requirements and Value Engineering Solutions.



PRODUCTS OF BRC ARABIA (LLC)

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Drawn Wire Coils for Reinforced Concrete Pipes



BRC Arabia

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Engineering Mesh Bending



Wire Mesh Cage



Bended Mesh for casting of water canal ducts



CUT AND BENT

More and more contractors are realizing the advantages of using cut & bent steel rebars. It helps them to save on overhead labours, wastage and most importantly time. These savings are the key factors for a profitable construction project.

BRC ARABIA (LLC) helps achieving this by producing and supplying cut and bent steel rebars to various type of projects. We produce it in accordance with (BS, International standards, ACI)

BRC ARABIA (LLC) has a professional team of engineers and technicians who insure the production of quality products as per the clients bar lists and in compliance with BS4466 / BS8666 or ACI 318. Whenever requested by client, BRC can prepare bar bending schedules (BBS).

ARABIA (LLC) uses only high quality steel from approved and well established mills. We can supply steel rebars to BS4449 (1997) and ASTM A615 specification (Table 1). Mill certificates can be provided upon request.

We can supply steel rebars to Specifications - BS4449: 2005 Grade B 500B and ASTM A615 Grade 60 (Table 1). Mill Test Certificates can be provided upon request.

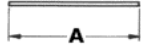
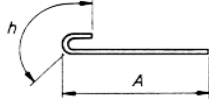
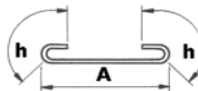

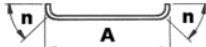


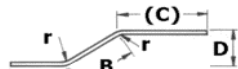
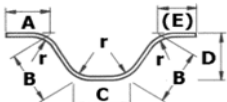
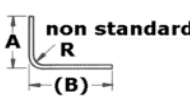
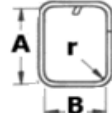
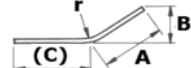
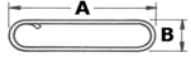
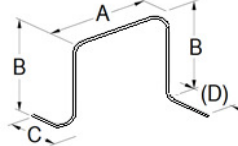
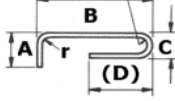

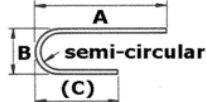
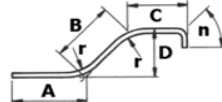
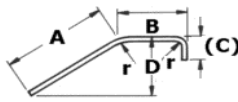
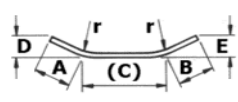
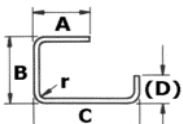
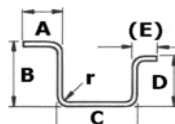

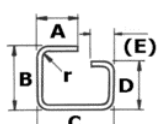

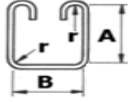
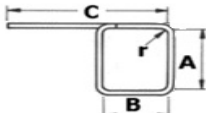
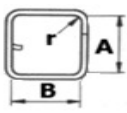
Table - 1		
SPECIFICATION	GRADE	YIELD STRENGTH
BS4449 : 2005	B 500B	485 N/mm ²
ASTM A615	60	60,000 psi

Diameters and Properties of Steel Rebars :		
Nominal Diameter (mm)	Properties	
	Weight Kg / Linear Meter	Cross Sectional area (mm ²)
6	0.222	28.3
8	0.395	50.3
10	0.617	78.5
12	0.888	113.0
14	1.210	154.0
16	1.580	201.0
18	1.998	254.0
20	2.470	314.0
22	2.984	380.0
25	3.853	491.0
32	6.313	804.0
40	9.865	1257.0

* Diameter 14,18 & 22mm may need special order and longer delivery time.

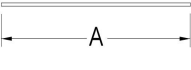

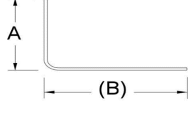
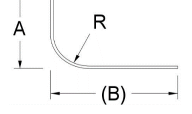
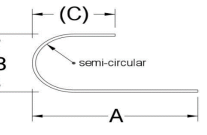
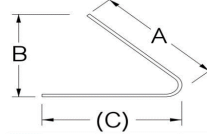
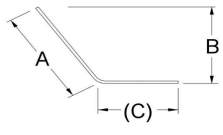
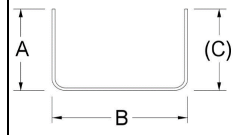
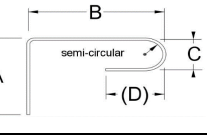
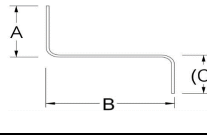
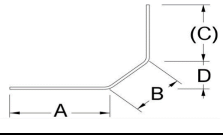
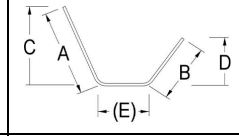
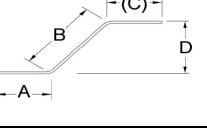
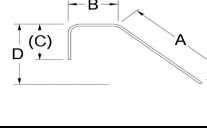
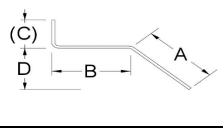
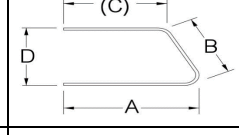
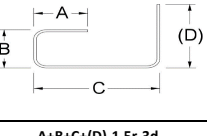
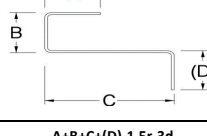
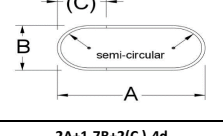
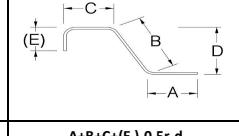
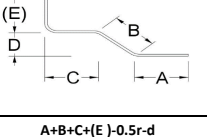
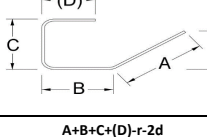
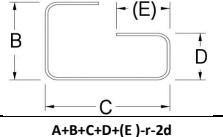
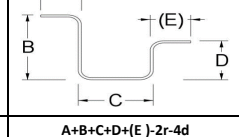
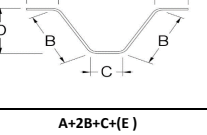
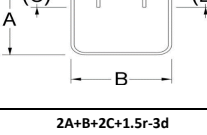
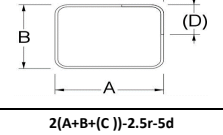
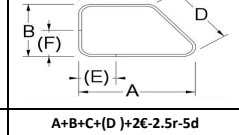
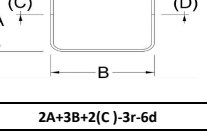
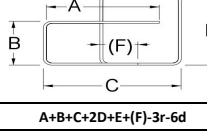
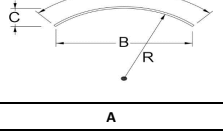
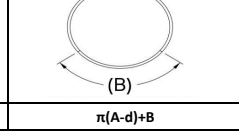
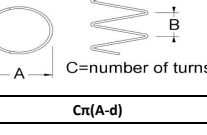
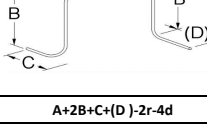
PREFERRED SHAPES TO BS 4466

BRC can supply bars bent to the following preferred shape codes :

SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
20	Length = A	32	Length = A + h	33	Length = A + 2h	34	Length = A + n
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
35	Length = A + 2n	37	Length = A + B	38	Length = A + B + C	41	Length = A + B + C
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
43	Length = A + 2B + C + E	51	Length = A + B	60	Length = 2(A + B) + 20d	62	Length = A + C
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
81	Length = 2A + 3B + 22d	83	Length = A + 2B + C + D	85	Length = A + B + 0.57C + D	86	Length = $C\pi(A+d)/B+8d$
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
39	Length = A + 0.57B + C	42	Length = A + B + C + n	45	Length = A + B + C	49	Length = A + B + C
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
52	Length = A + B + C + D	53	Length = A + B + C + D + E	54	Length = A + B + C	55	Length = A + B + C + D + E
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
65	Length = A	72	Length = 2A + B + 25d	73	Length = 2A + B + C + 10d	74	Length = 2A + 3B + C + 20d

PREFERRED SHAPES TO BS 8666

BRC can supply bars bent to the following preferred shape codes :

SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
00	Length = A	01	Length = A	11	$A + (B) - 0.5r - d$	12	$A + (B) - 0.43R - 1.2d$
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
13	$A + 0.57B + (C) - 1.6d$	14	$A + (C) - 4d$	15	$A + (C)$	21	$A + B + (C) - r - 2d$
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
22	$A + B + C + (D) - 1.5r - 3d$	23	$A + B + (C) - r - 2d$	24	$A + B + (C)$	25	$A + B + (E)$
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
26	$A + B + (C)$	27	$A + B + (C) - 0.5r - d$	28	$A + B + (C) - 0.5r - d$	29	$A + B + (C) - r - 2d$
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
31	$A + B + C + (D) - 1.5r - 3d$	32	$A + B + C + (D) - 1.5r - 3d$	33	$2A + 1.7B + 2(C) - 4d$	34	$A + B + C + (E) - 0.5r - d$
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
35	$A + B + C + (E) - 0.5r - d$	36	$A + B + C + (D) - r - 2d$	41	$A + B + C + D + (E) - r - 2d$	44	$A + B + C + D + (E) - 2r - 4d$
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
46	$A + 2B + C + (E)$	47	$2A + B + 2C + 1.5r - 3d$	51	$2[A + B + (C)] - 2.5r - 5d$	56	$A + B + C + (D) + 2E - 2.5r - 5d$
SHAPE CODE		SHAPE CODE		SHAPE CODE		SHAPE CODE	
63	$2A + 3B + 2(C) - 3r - 6d$	64	$A + B + C + 2D + E + (F) - 3r - 6d$	67	A	75	$\pi(A - d) + B$
SHAPE CODE		SHAPE CODE		SHAPE CODE	All other shapes where standard shapes cannot be used. No other shape code number, form of designation or abbreviation shall be used in scheduling. A dimensioned sketch shall be drawn over the dimensions columns A to E. Every dimension shall be specified and the dimension that is allow for permissible deviations shall be indicated in parantheses, otherwise the fabricator is free to choose which dimension shall allow for tolerance.		
77	$C\pi(A - d)$	98	$A + 2B + C + (D) - 2r - 4d$	99	To be calculated.		

BRC WELDED WIRE MESH

Beside the widely and traditionally used ground slab reinforcement, BRC Wire Mesh became an important reinforcement in modern construction. It is now widely used in all different types of construction and in most structural members such as:

- Retaining Walls
- Precast Elements
- Mat Foundations
- Silos, Pipes
- Suspended Slab
- Canal Lining and Culverts

Also in moderate size housing projects, BRC MESH is the major reinforcement used. This saves time and material due to the quick fixing of mesh and the high strength of the mesh steel.

BRC MESH is produced using high yield strength - drawn deformed wires to BS4482 : 2005, ASTM A1064 or DIN 488 and in accordance with BS4483:2005 or ASTM A1064 M standard. (Minimum yield strength of 485 - 515 N/mm²). BRC Mesh comes in standard size. If special sizes could be produced upon client's request, BRC has the capability of producing mesh with wires diameters ranging from 5 to 12mm with various sheet sizes and openings. The table below gives details of wire sizes, weights and steel areas per metre width for BRC special and standard sheets.

For a wider usage of Welded Wire Mesh, in all structural elements of construction, Bridges, Foundations, Columns, Beams, Retaining Walls and New Jersey Barriers, BRC Arabia has the capabilities of producing suitable Engineering Welded Wire Mesh, with wire sizes upto 12mm and with different sizes of mesh sheets upto 3.30 m width and upto 10.00 m length.

Wire		Cross Sectional Area, Sq. Millimeters / Linear Meter							
Nominal	Nominal	Sectional			Center to Center Spacing mm				
Diameter	Weight	Area	50	75					
mm	mm	mm ²	100 d*	150 d*	100	150	200	250	300
4.0	0.099	12.6	252	168	126	84	63	50	42
4.5	0.125	15.9	318	212	159	106	80	64	53
5.0	0.154	19.6	393	262	196	131	98	78	65
5.5	0.187	23.8	475	317	238	158	119	95	79
6.0	0.222	28.3	565	377	282	188	141	113	94
6.5	0.260	33.2	664	443	331	221	165	133	110
7.0	0.302	38.5	770	513	385	257	192	154	128
7.5	0.347	44.2	884	589	442	295	220	177	147
8.0	0.395	50.3	1005	670	503	335	251	201	167
8.5	0.445	56.7	1135	757	567	378	284	227	189
9.0	0.499	63.6	1272	848	636	424	318	254	212
9.5	0.556	70.9	1418	945	709	473	354	283	236
10.0	0.617	78.5	1571	1047	785	524	392	314	261
10.5	0.680	86.6	1732	1155	866	577	433	346	289
11.0	0.746	95.0	1901	1267	950	634	474	380	316
11.5	0.815	103.9	2077	1385	1039	692	519	415	345
12.0	0.888	113.1	2262	1508	1131	754	566	452	376

d* means double wires of the same diameter. Sometimes, instead of placing the wires in a single formation, to obtain a given cross sectional area they are placed in double formation but with a spacing twice as large so that the same cross sectional area is obtained. If the spacing remains the same, the cross sectional area obtained is consequently double that of a single wire.

MOST POPULAR BRC MESH

MOST COMMONLY USED STANDARD SHEETS TO BS 4483 : 2005

Sheet Size	Type	Pitch		Wire Size		Cross sectional Area/ Meter width		Weight	
		Main	Cross	Main	Cross	Main	Cross	Sheet	m ²
m		mm	mm	mm	mm	mm ²	mm ²	kg.	Kg.
SQUARE FABRICS : TYPE - A									
2.4 x 4.8	A98	200	200	5	5	98	98	17.7	1.54
2.4 x 4.8	A142	200	200	6	6	142	142	25.6	2.22
2.4 x 4.8	A193	200	200	7	7	193	193	34.8	3.02
2.4 x 4.8	A252	200	200	8	8	252	252	45.5	3.95
2.4 x 4.8	A393	200	200	10	10	393	393	71.0	6.16
2.4 x 4.8	A565	200	200	12	12	565	565	102.3	8.88
RECTANGULAR FABRICS : TYPE - B									
2.4 x 4.8	B196	100	200	5	7	196	193	35.1	3.05
2.4 x 4.8	B283	100	200	6	7	283	193	43.0	3.73
2.4 x 4.8	B385	100	200	7	7	385	193	52.2	4.53
2.4 x 4.8	B503	100	200	8	8	503	252	68.3	5.93
2.4 x 4.8	B785	100	200	10	8	785	252	93.8	8.14
2.4 x 4.8	B1131	100	200	12	8	1131	252	125.6	10.90
RECTANGULAR FABRICS : TYPE - C									
2.4 x 4.8	C283	100	400	6	5	283	49.0	30.1	2.61
2.4 x 4.8	C385	100	400	7	5	385	49.0	39.3	3.41
2.4 x 4.8	C503	100	400	8	5	503	49.0	50.0	4.34
2.4 x 4.8	C785	100	400	10	6	785	70.8	77.4	6.72

STANDARD SHEETS TO DIN 488

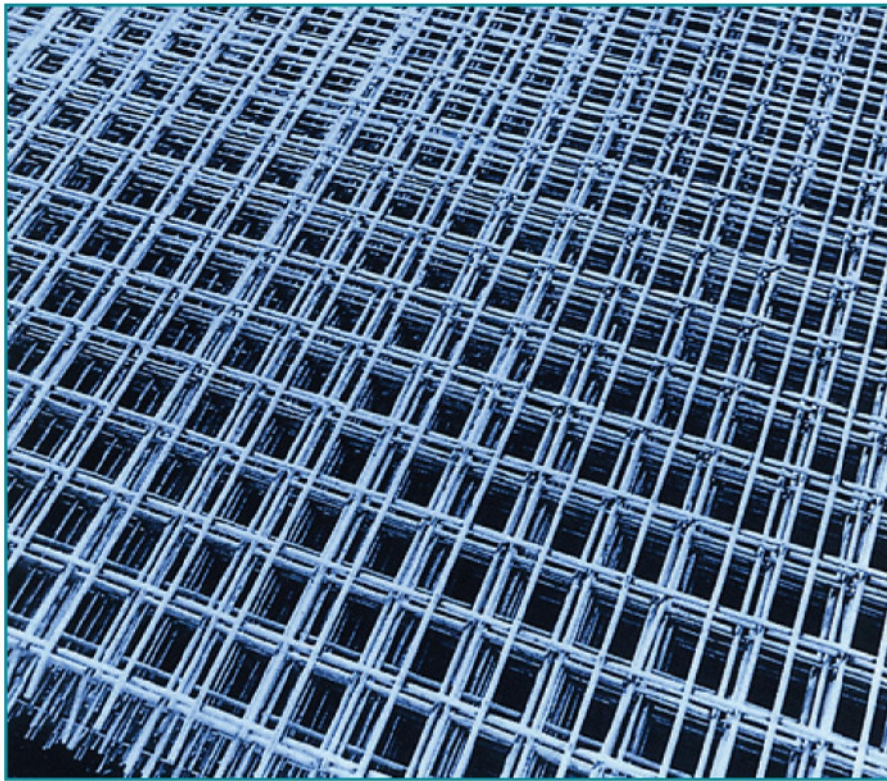
Sheet Size	No Edge Structure Type	Pitch		Wire Size		Cross sectional Area/ Meter		Weight	
		Main	Cross	Main	Cross	Main	Cross	Sheet	m ²
m		mm	mm	mm	mm	cm ²	cm ²	kg.	Kg.
2.15 x 5.00	Q131	150	150	5	5	1.31	1.31	22.5	2.09
2.15 x 5.00	Q188	150	150	6	6	1.88	1.88	32.4	3.01

BRC - OTHER POSSIBLE MESH TYPES (NOT INCLUDED IN BS OR DIN STANDARD RANGE)

Sheet Size	Type	Pitch		Wire Size		Cross sectional Area/ Meter width		Weight	
		Main	Cross	Main	Cross	Main	Cross	Sheet	m ²
m		mm	mm	mm	mm	mm ²	mm ²	kg.	Kg.
2.4 x 4.8	Q131-SPL	150	150	5	5	131	131	23.6	2.05
2.4 x 4.8	Q188-SPL	150	150	6	6	188	188	34.1	2.96
2.4 x 4.8	S257	150	150	7	7	257	257	46.4	4.03
2.4 x 4.8	S335	150	150	8	8	335	335	60.7	5.27
2.4 x 4.8	S524	150	150	10	10	524	524	94.7	8.22
2.4 x 4.8	S754	150	150	12	12	754	754	136.4	11.84
2.4 x 4.8	SQ-196	100	100	5	5	196	196	35.4	3.07
2.4 x 4.8	SQ-282	100	100	6	6	282	282	51.2	4.44
2.4 x 4.8	SQ-385	100	100	7	7	385	385	69.6	6.04
2.4 x 4.8	SQ-503	100	100	8	8	503	503	91.0	7.90
2.4 x 4.8	SQ-785	100	100	10	10	785	785	142.0	12.33
2.4 x 4.8	SQ-1131	100	100	12	12	1131	1131	204.6	17.76

N.B : Engineering Mesh with different wire diameter and opening can be confirmed upon enquiry

GENERAL - PURPOSE WELD MESH



Black or galvanised Mesh of square and rectangular small openings for the several applications in:

- Construction & Mining
- High Security Fencing & Partitions
- Shelving & Decoration
- Protective Screens and Basket
- Steel Structure Fire Proofing
Openings, mm:
50 X 50, 100 X 100
50 X 100 and other combinations.

Smaller openings and finer wires can be arranged upon order.

* Steel wires are to BS4482 or ASTM A82, wire diameters from 2.0 to 5mm.

REBARS MECHANICAL COUPLERS

BRC ARABIA (LLC), under Distribution Agreement, supplies BARTEC Mechanical Steel Rebars Couplers with Rebars Threading.

The BARTEC Couplers System, is a parallel-threaded Mechanical Splicing System for the connection of reinforcing bars Dia. 12 to 56mm (ASTM #4 to #18).

Designed and manufactured in Compliance with ACI 318, IBC 2006, BS8110, Eurocode 2, DIN 1045 and ASME SEC III Div. 2.

Whilst Standard Couplers are most commonly used, other types of couplers can be supplied.

With Modern Construction Technology, couplers are widely used as the economical and practical way for rebars continuation, avoiding rebars congestion and over lapping wastage.

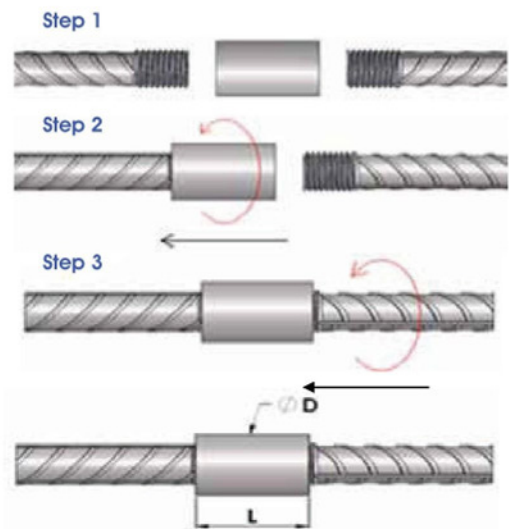
BARTEC COUPLERS BENEFITS:

- No reduction of the bar cross section area.
- Full tension splice: bar break under tensile load.
- Solves bar congestion problems.
- No staggering of splices bars required.
- Easy installation, no torque wrench required.
- Full traceability of material origin and production batch.

*When required our Technical Engineers can assist for the best splicing solution and application.

STANDARD SPLICES (Type A)

Standard BARTEC® splices are accomplished by use of a standard female coupler matching the thread size made on the bars.





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