LONG PRODUCTS CATALOGUE

بشاي للصلب

BESHAY STEEL

CONTENTS

COMPANY PROFILE

With great pride, from the heart of Egypt, a global steel maker has evolved.

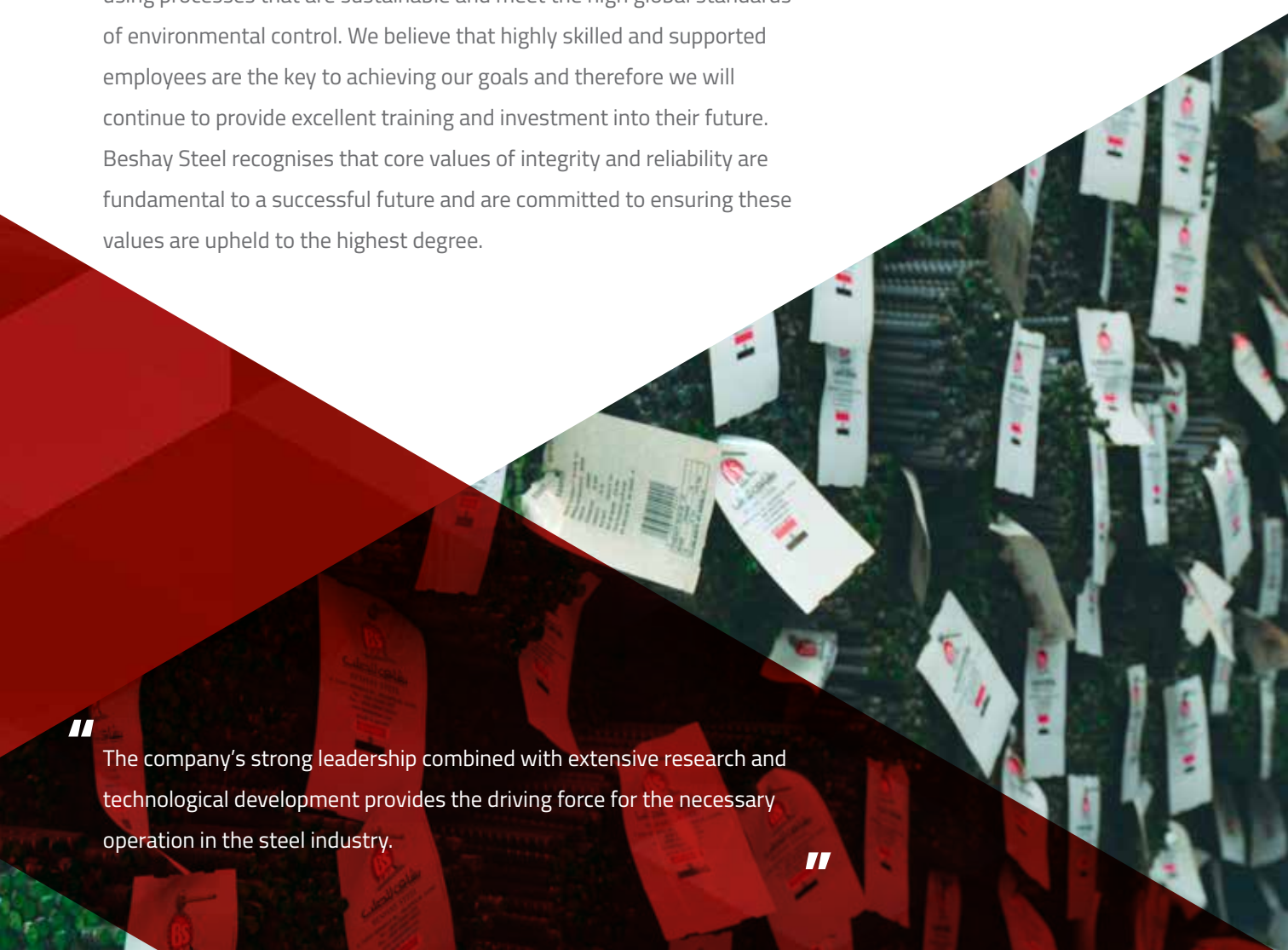
Beshay Steel group is the largest privately owned steel producer in Egypt and the Middle East with an annual crude steel capacity of up to 4 MTPY.

Currently, the company is focused on producing Direct Reduced Iron (DRI), Billets, Re-bars, Wire Rods and Light Sections for the domestic and global markets. The group employs more than 3,500 handpicked personnel, qualified at the highest levels to continue to exceed the standards of the industry.

The majority of the production is consumed by the demands of the local market and the balance is exported to the Middle East, Europe and Asia markets. Our vision is to steadily invest in expanding our production capacities in order to meet the exponentially growing global demands and therefore retain our position at the front of the steel industry.

Our mission is to produce and supply the highest quality product to our customers

using processes that are sustainable and meet the high global standards of environmental control. We believe that highly skilled and supported employees are the key to achieving our goals and therefore we will continue to provide excellent training and investment into their future. Beshay Steel recognises that core values of integrity and reliability are fundamental to a successful future and are committed to ensuring these values are upheld to the highest degree.



"The company's strong leadership combined with extensive research and technological development provides the driving force for the necessary operation in the steel industry."

INTEGRATED STEEL MAKING

Direct Reduction:

1

Iron ore is reduced to sponge iron (DRI) by the reaction with carbon monoxide and hydrogen in a MIDREX shaft furnace.

2

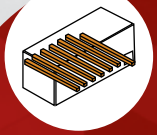
The DRI is transported directly to an electric arc furnace at 800o C via a 36m conveyor where it is melted together with steel scrap.

3

The liquid steel is transported in a ladle to the ladle furnace where the temperature and chemical composition are tuned for casting.

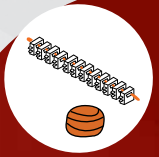
4

The liquid steel is cast into square section billets.



5

The billets are transported to the rolling mill reheat furnace at 700o C to maximize energy effciency.



6

The hot billets are soaked in a temperature of 1200o C and rolled in the rolling mill to produce re-bars, wire rods or light sections.

7

The finished products are shipped to Beshay Steel customers all over the world.

WHY BESHAY STEEL ?

Our products are accredited by many other internationally recognized bodies.

As a result we export to several countries in Europe such as the United Kingdom, Italy, Germany, Russia and Ukraine. We have a large share of Middle East imports especially from neighboring countries, such as the Gulf States, Syria, Sudan and Algeria.

Accreditation:

ISO 9001:2008 Quality Management System

ISO 14001:2004 Environmental Management

ISO 18001:2007 Occupational Health and Safety Management Systems

ISO 50001:2011 Energy Management

UK Cares Product Conformity Production of ASTM Certificate

UK Cares Product Conformity Production of BS Certificate

UK Cares Quality Management System Certificate


SYSTEM CERTIFICATION
ISO 9001
SGS
UKAS
MANAGEMENT
SYSTEMS
0005


CARES
150901
UKAS
PRODUCT
CERTIFICATION


SYSTEM CERTIFICATION
ISO 14001
SGS
UKAS
MANAGEMENT
SYSTEMS
0005


CARES
070701
UKAS
PRODUCT
CERTIFICATION

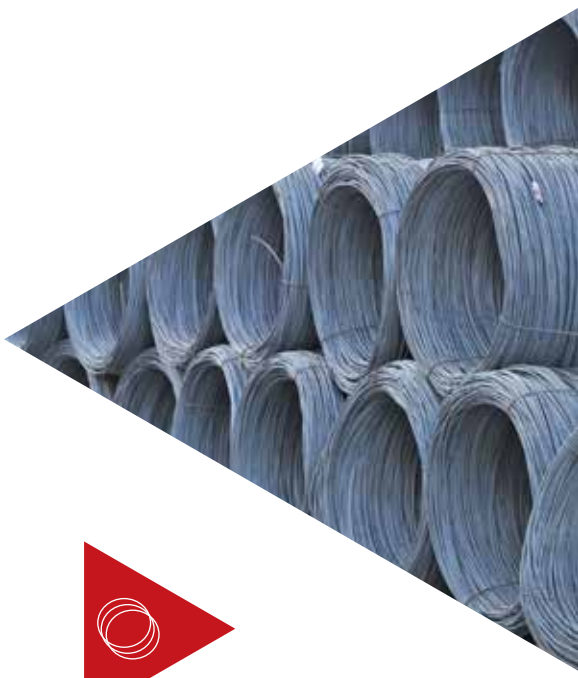

BS
بشاي للصلب
BESHAY STEEL


SYSTEM CERTIFICATION
OHSAS 18001
SGS


CARES
1146
UKAS
QUALITY
MANAGEMENT


SYSTEM CERTIFICATION
ISO 50001
SGS

PRODUCT RANGE



Re-bars:

The Beshay Steel Product Range covers re-bars from 10mm nominal diameter up to 40mm. Re-bars are produced at 12m lengths, unless otherwise specified by the customer. All dimensional tolerances and ovality satisfy national and international standards. Beshay's production of re-bars ensures excellent quality of structure and composition.

Wire Rods:

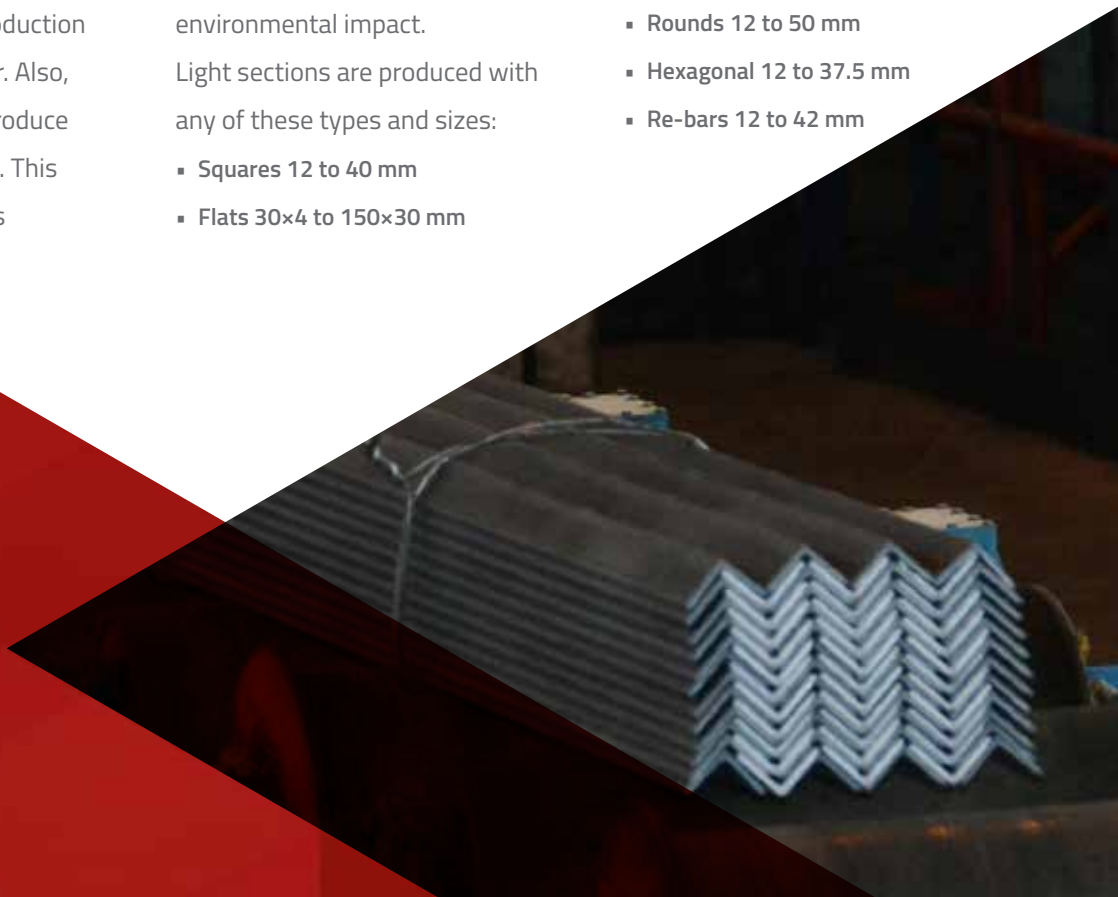
Wire Rods are produced using the highest technology techniques and our production line is capable of producing plain and ripped coils ranging from 6mm up to 12 mm in diameter. The Wire Rods come with the assurance of superiority, high quality and dimensional accuracy.

Profiles & Angles:

Our Profiles & Angles plant produces squares, Hexagonals, angles, flats, channels, and beams with the total production of 500,000 tons per year. Also, the plant is capable to produce both re-bars and rounds. This Profiles & Angles plant is adapted to hot charge billets from our Melt Shop plant to save energy and have less environmental impact.

Light sections are produced with any of these types and sizes:

- **Squares 12 to 40 mm**
- **Flats 30×4 to 150×30 mm**
- **Equal Angles 30×3 to 100×12 mm**
- **Channels 30×15 to 120×55 mm**
- **IPE/IPN 80 to 120 mm**
- **Rounds 12 to 50 mm**
- **Hexagonal 12 to 37.5 mm**
- **Re-bars 12 to 42 mm**



PRODUCT RANGE

Re-bars & Wire Rods

Standards Sheet

Standard		Grade	Y.S (MPa)		T.S
			Min.	Max.	Min.
Egyptian	ES 262:2000	240 Plain Bar	240	–	350
		280 Plain Bar	280	–	450
		360/520 Ribbed Bar	360	–	520
		400/600 Ribbed Bar	400	–	600
	ES 262:2009	B240D P Plain Bar	240	–	–
		B300D P Plain Bar	300	–	–
		B420D P Plain Bar	420	540	–
		B420DWP Plain Bar	420	540	–
		B300D R Ribbed Bar	300	–	–
		B300DWR Ribbed Bar	300	390	–
		B400DWR Ribbed Bar	400	520	–
		B500DWR Ribbed Bar	500	650	–
		B300C R Ribbed Bar	300	–	–
		B400CWR Ribbed Bar	400	–	–
		B500C R Ribbed Bar	500	–	–
		B300B R Ribbed Bar	300	–	–
		B400B R Ribbed Bar	400	–	–
		B400BWR Ribbed Bar	400	–	–
		B500B R Ribbed Bar	500	–	–
		B500BWR Ribbed Bar	500	–	–
American	ASTM A615/A615M-15	Gr.40 Ribbed Bar	300	–	500
		Gr.60 Ribbed Bar	420	–	620
		Gr.75 Ribbed Bar	520	–	690
	ASTM A 706/A706M-14	Gr.60 Ribbed Bar	420	540	550
British	BS 4449:1997	Gr.250 Plain Bar	250	–	–
		Gr.460b Ribbed Bar	460	–	–
	BS 4449:2005	Gr. B500B Ribbed Bar	500	650	–
Lebanon	LRB500	(A500S) Ribbed Bar	500	–	600
Canada	CAN/CSA -G30.18-M92	Gr. 500W Ribbed Bar	500	625	625
Italian	Italian	Fe B 44K Ribbed Bar	430	–	540
Australian	AS/NZS 4671:2001	Gr. 500E Ribbed Bar	500	600	–
Algeria	Algeria	RB 500W Ribbed Bar	500	–	550
DIN	DIN 488 BSt	500s Ribbed Bar	500	650	550
JIS	JIS G3117	SD50 Ribbed Bar	490	628	618
ISO	ISO 6935:1991	RB500W Ribbed Bar	500	–	550
UNE	UNE	UNE 36065 Ribbed Bar	500	625	575

Mechanical Properties					Chemical Composition (wt%)							
(MPa)	Y.S/ T.S	Elongation at Fracture (%)		Elongation at Max. Force (%)	C	Si	Mn	P	S	N	Cu	C.E.
Max.	Min.	Min.	Gauge Length	Min.	Max.	Max.	Max.	Max	Max.	Max.	Max.	Max.
–	1.10	20	10d	–	0.30	–	–	0.060	0.060	–	–	–
–	1.10	18	10d	–	0.30	–	–	0.060	0.600	–	–	–
–	1.05	12	10d	–	0.45	–	–	0.060	0.060	0.013	–	0.51
–	1.05	10	10d	–	0.45	–	–	0.060	0.060	0.013	–	0.51
520	1.25	22	5d	8	–	–	–	0.058	0.058	–	–	–
600	1.25	19	5d	8	–	–	–	0.058	0.058	–	–	–
–	1.25	16	5d	8	–	–	–	0.058	0.058	–	–	–
–	1.25	16	5d	8	0.33	0.60	1.56	0.048	0.048	0.012	–	0.56
–	1.25	17	5d	8	–	–	–	0.058	0.058	–	–	
–	1.25	17	5d	8	0.30	0.60	1.56	0.048	0.048	0.014	–	0.49
–	1.25	17	5d	8	0.32	0.60	1.88	0.048	0.048	0.014	–	0.56
–	1.25	13	5d	8	0.35	0.60	1.88	0.048	0.048	0.014	–	0.61
–	1.15	16	5d	7	–	–	–	0.070	0.070	–	–	–
–	1.15	14	5d	7	0.24	0.65	1.66	0.058	0.058	0.014	–	0.50
–	1.15	14	5d	7	–	–	–	0.070	0.070	–	–	–
–	1.08	16	5d	5	–	–	–	0.070	0.070	–	–	–
–	1.08	14	5d	5	–	–	–	0.070	0.070	–	–	–
–	1.08	14	5d	5	0.24	0.65	1.66	0.058	0.058	0.014	–	0.50
–	1.08	14	5d	5	–	–	–	0.070	0.070	–	–	–
–	1.08	14	5d	5	0.24	0.65	1.66	0.058	0.058	0.014	–	0.50
–	–	12	200 mm	–	–	–	–	0.060	–	–	–	–
–	–	9	200 mm	–	–	–	–	0.060	–	–	–	–
–	–	7	200 mm	–	–	–	–	0.060	–	–	–	–
–	1.25	14	200 mm	–	0.33	0.55	1.56	0.043	0.053	–	–	0.55
–	1.15	22	5d	–	0.27	–	–	0.065	0.065	0.013	–	0.45
–	1.08	14	5d	5	0.27	–	–	0.055	0.055	0.013	–	0.54
–	1.08	14	5d	5	0.24	–	–	0.055	0.055	0.014	0.85	0.52
–	–	10	10d	–	0.25	–	–	0.055	0.055	0.013	–	0.52
–	–	12	200 mm	–	0.33	0.55	1.65	0.042	0.052	0.013	–	0.55
–	–	12	5d	–	0.24	–	–	0.055	0.055	0.013	–	0.52
–	1.15	12	10d	–	0.24	–	–	0.055	0.055	0.013	–	0.51
–	1.05	14	5d	–	0.24	0.65	1.70	0.055	0.055	0.013	–	0.50
–	1.08	10	10d	8	0.24	–	–	0.050	0.050	0.013	0.65	–
–	–	12	10d	–	0.32	0.55	1.80	0.040	0.040	0.013	–	0.60
–	1.05	14	5d	–	0.24	0.65	1.50	0.055	0.055	0.013	–	0.52
–	1.15	16	5d	–	0.24	–	–	0.055	0.055	0.013	–	0.52

PRODUCT RANGE

Re-bars

Diameters

Re-bar Diameter (mm)	Unit Weight (Kg/m)
10	0.617
12	0.888
14	1.210
16	1.580
18	2.000
20	2.470
22	2.980
25	3.850
28	4.830
32	6.310
36	8.000
40	9.860
42	10.870

	Number of Bars / Bundle	Bundle Weight (Kg)*
	270	1999.080
	188	2003.328
	138	2003.760
	106	2009.760
	84	2016.000
	67	1985.880
	56	2002.560
	43	1986.600
	34	1970.640
	26	1968.720
	21	2016.000
	17	2011.440
	15	1956.64

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Wire Rods

Diameters

Wire Rod Diameter (mm)	
6	
8	
10	
12	

Unit Weight (Kg\MT)	Bundle Weight (Kg)*
0.222	2000.00
0.395	2000.00
0.617	2000.00
0.888	2000.00

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

Standards Sheet

Standard		Grade	Mechanical Properties						
			Y.S (MPa)			T.S (MPa)		Elongation at Fracture (%) Lo=5.65 √S	
			Thickness (mm)						
			≤ 16	> 16 ≤ 40	≥ 40 > 63	> 3 ≤ 100		≥ 3 > 40	≥ 40 > 63
			Min.	Min.	Min.	Min.	Max.	Min.	Min.
European	EN 10025-2	S235JR	235	225	215	360	510	26	25
		S235J0	235	225	215	360	510	26	25
		S235J2	235	225	215	360	510	26	25
		S275JR	275	265	255	410	560	23	22
		S275J0	275	265	255	410	560	23	22
		S275J2	275	265	255	410	560	23	22
		S355JR	355	345	335	470	630	22	21
		S355J0	355	345	335	470	630	22	21
		S355J2	355	345	335	470	630	22	21
		S355K2	355	345	335	470	630	22	21
		S450J0	450	430	410	550	720	17	17

Impact strength (J)	Chemical Composition (wt%)											
	C			Si	Mn	P	S	N	Cu	C.E V		
	Thickness (mm)									Thickness (mm)		
	≤ 16	> 16 ≤ 40	≥ 40							≤ 30	> 30 ≤ 40	> 40 ≥ 150
Min.	Max.	Max.	Max.	Max.	Max.	Max	Max.	Max.	Max.	Max.	Max.	Max.
27	0.19	0.19	0.23	–	1.5	0.045	0.045	0.014	0.6	0.35	0.35	0.38
27	0.19	0.19	0.19	–	1.5	0.040	0.040	0.014	0.6	0.35	0.35	0.38
27	0.19	0.19	0.19	–	1.5	0.035	0.035	–	0.6	0.35	0.35	0.38
27	0.24	0.24	0.25	–	1.6	0.045	0.045	0.014	0.6	0.40	0.40	0.42
27	0.21	0.21	0.21	–	1.6	0.040	0.040	0.014	0.6	0.40	0.40	0.42
27	0.21	0.21	0.21	–	1.6	0.035	0.035	–	0.6	0.40	0.40	0.42
27	0.27	0.27	0.27	0.6	1.7	0.045	0.045	0.014	0.6	0.45	0.47	0.47
27	0.23	0.23	0.24	0.6	1.7	0.040	0.040	0.014	0.6	0.45	0.47	0.47
27	0.23	0.23	0.24	0.6	1.7	0.035	0.035	–	0.6	0.45	0.47	0.47
40	0.23	0.23	0.24	0.6	1.7	0.035	0.035	–	0.6	0.45	0.47	0.47
27	0.23	0.23	0.24	0.6	1.8	0.040	0.040	0.027	0.6	0.47	0.49	0.49

JR = The value of impact strength at tested at temperature 20 °C is 27J
J0 = The value of impact strength at tested at temperature 0 °C is 27J
J2 = The value of impact strength at tested at temperature - 20 °C is 27J
K2 = The value of impact strength at tested at temperature - 20 °C is 40J

PRODUCT RANGE

Profiles & Angles

Round Bar Diameters

Round Bar Diameter (mm)	Unit Weight	Number of Pieces / Bundle (6m)
12	0.89	374
14	1.21	275
16	1.58	210
18	2.00	166
20	2.47	135
22	2.98	111
25	3.85	86
28	4.83	69
30	5.55	60
32	6.38	52
34	7.13	46
36	8.00	41
40	9.86	33
42	10.88	30
45	12.49	26
48	14.22	23
50	15.41	21

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1997.16	374	3994.32
1996.50	275	3993.00
1990.80	210	3981.60
1992.00	166	3984.00
2000.70	135	4001.40
1984.68	111	3969.36
1986.60	86	3973.20
1999.62	69	3999.24
1998.00	60	3996.00
1990.87	52	3981.74
1968.71	46	3937.42
1967.02	41	3934.03
1952.28	33	3904.56
1959.12	30	3918.24
1949.06	26	3898.13
1961.81	23	3923.62
1941.66	21	3883.32

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

Square Bar Diameters

Square Bar Diameter (mm)	Unit Weight	Number of Pieces / Bundle (6m)
12	1.13	294
14	1.54	216
16	2.01	165
20	3.14	106
24	4.53	73
25	4.91	67
30	7.07	47
35	9.62	34
40	12.56	26
50	19.65	17

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1993.32	294	3986.64
1995.84	216	3991.68
1989.90	165	3979.80
1997.04	106	3994.08
1982.83	73	3965.65
1973.82	67	3947.64
1993.74	47	3987.48
1962.48	34	3924.96
1959.36	26	3918.72
2004.30	17	4008.60

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

Hexagonal Bar Diameters

Hexagonal Bar Diameter (mm)	Unit Weight	Number of Pieces / Bundle (6m)
12	0.978	340
15	1.529	218
18	2.200	151
20.5	2.850	116
22.5	3.440	97
23.5	3.750	88
25.5	4.419	75
28.5	5.520	60
31.5	6.740	49
33.5	7.627	43
37.5	9.568	34

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1995.12	340	3990.24
1999.93	218	3999.86
1993.20	151	3986.40
1983.60	116	3967.20
2002.08	97	4004.16
1980.00	88	3960.00
1988.55	75	3977.10
1987.20	60	3974.40
1981.56	49	3963.12
1967.77	43	3935.53
1951.87	34	3903.74

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

Angles Dimensions

Angles Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
30x3	1.37	243
30x4	1.78	187
35x4	2.10	158
35x5	2.57	129
40x3	1.84	181
40x4	2.42	137
40x5	2.98	111
45x4	2.74	121
45x5	3.38	98
50x4	3.06	108
50x5	3.77	88
50x6	4.47	74
50x7	5.16	64
60x5	4.57	72
60x6	5.42	61
60x8	7.09	47
65x7	6.83	48
70x6	6.38	52
70x7	7.38	45
70x9	9.34	35
75x7	7.93	42
75x8	9.03	36
80x6	7.34	45
80x7	8.49	39
80x8	9.66	34
80x10	11.85	28
90x7	9.58	34
90x9	12.17	27
100x8	12.17	27
100x10	15.07	22
100x12	17.82	18

Bundle Weight (Kg)* (6m)	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* (12m)
1997.46	243	3994.92
1997.16	187	3994.32
1990.80	158	3981.60
1989.18	129	3978.36
1998.24	181	3996.48
1989.24	137	3978.48
1984.68	111	3969.36
1989.24	121	3978.48
1987.44	98	3974.88
1982.88	108	3965.76
1990.56	88	3981.12
1984.68	74	3969.36
1981.44	64	3962.88
1974.24	72	3948.48
1983.72	61	3967.44
1999.38	47	3998.76
1967.04	48	3934.08
1990.56	52	3981.12
1992.60	45	3985.20
1961.40	35	3922.80
1998.36	42	3996.72
1950.48	36	3900.96
1981.80	45	3963.60
1986.66	39	3973.32
1970.64	34	3941.28
1990.80	28	3981.60
1954.32	34	3908.64
1971.54	27	3943.08
1971.54	27	3943.08
1989.24	22	3978.48
1924.56	18	3849.12

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

IPE Beams Dimensions

IPE Beams Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
80x46	6.00	55
100x55	8.10	41
120x64	10.40	32

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1980.00	55	3960.00
1992.60	41	3985.20
1996.80	32	3993.60

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

IPN Beams Dimensions

IPN Beams Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
80x42	5.94	56
100x50	8.34	39
120x58	11.10	30

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1995.84	56	3991.68
1951.56	39	3903.12
1998.00	30	3996.00

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

IPEA Beams Dimensions

IPEA Beams Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
100x55	6.90	48
120x64	8.70	38

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1987.20	48	3974.40
1983.60	38	3967.20

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

UPN/UPE Channels Dimensions

UPN Channels Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
30x15	1.74	191
40x20	2.87	116
50x25	3.86	86
50x38	5.69	58
60x30	5.07	65
65x42	7.09	47
80x45	8.64	38
100x50	10.60	31
120x55	13.40	24

UPE Channels Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
80x40	7.05	47
100x46	8.59	38
120x52	10.40	32

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1994.04	191	3988.08
1997.52	116	3995.04
1991.76	86	3983.52
1980.12	58	3960.24
1977.30	65	3954.60
1999.38	47	3998.76
1969.92	38	3939.84
1971.60	31	3943.20
1929.60	24	3859.20

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1988.10	47	3976.20
1958.52	38	3917.04
1996.80	32	3993.60

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

PRODUCT RANGE

Profiles & Angles

Flat Dimensions (30*4 - 60*6)

Flat Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
30x4	0.940	353
30x5	1.150	289
30x6	1.410	236
30x8	1.880	177
30x10	2.360	141
35x4	1.100	303
35x5	1.370	243
35x6	1.650	202
35x8	2.200	151
35x10	2.750	121
40x4	1.220	273
40x5	1.530	217
40x6	1.880	177
40x8	2.510	132
40x10	3.140	106
40x12	3.770	88
40x15	4.700	70
40x16	5.030	66
50x5	1.960	170
50x6	2.360	141
50x8	3.140	106
50x10	3.930	84
50x12	4.710	70
50x14	5.500	60
50x15	5.880	56
50x20	7.850	42
50x25	9.830	33
50x30	11.780	28
60x5	2.360	141
60x6	2.830	117

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1995.16	353	3990.31
1994.10	289	3988.20
1996.56	236	3993.12
1996.56	177	3993.12
1996.56	141	3993.12
1999.80	303	3999.60
1997.46	243	3994.92
1999.80	202	3999.60
1993.20	151	3986.40
1996.50	121	3993.00
1998.36	273	3996.72
1992.06	217	3984.12
1996.56	177	3993.12
1987.92	132	3975.84
1997.04	106	3994.08
1990.56	88	3981.12
1974.00	70	3948.00
1991.88	66	3983.76
1999.20	170	3998.40
1996.56	141	3993.12
1997.04	106	3994.08
1980.72	84	3961.44
1978.20	70	3956.40
1980.72	60	3961.44
1975.68	56	3951.36
1978.20	42	3956.40
1945.35	33	3890.70
1979.04	28	3958.08
1996.56	141	3993.12
1986.66	117	3973.32

*** The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.**

PRODUCT RANGE

Profiles & Angles

Flat Dimensions (60*8 -100*10)

Flat Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
60x8	3.770	88
60x10	4.710	70
60x12	5.650	58
60x15	7.050	47
60x20	9.420	35
60x30	14.130	23
70x6	3.300	101
70x8	4.400	75
70x10	5.500	60
70x12	6.590	50
70x15	8.230	40
70x16	8.800	37
70x20	10.990	30
70x25	13.720	24
70x30	16.490	20
80x6	3.770	88
80x8	5.020	66
80x10	6.280	53
80x12	7.540	44
80x14	8.803	37
80x15	9.432	35
80x16	10.061	33
80x20	12.560	26
80x30	18.840	17
90x10	7.070	47
90x20	14.130	23
90x30	21.20	15
100x6	4.710	70
100x8	6.280	53
100x10	7.850	42

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1990.56	88	3981.12
1978.20	70	3956.40
1966.20	58	3932.40
1988.10	47	3976.20
1978.20	35	3956.40
1949.94	23	3899.88
1999.80	101	3999.60
1980.00	75	3960.00
1980.00	60	3960.00
1977.00	50	3954.00
1975.20	40	3950.40
1953.60	37	3907.20
1978.20	30	3956.40
1975.68	24	3951.36
1978.80	20	3957.60
1990.56	88	3981.12
1987.92	66	3975.84
1997.04	53	3994.08
1990.56	44	3981.12
1954.27	37	3908.53
1980.72	35	3961.44
1992.08	33	3984.16
1959.36	26	3918.72
1921.68	17	3843.36
1993.74	47	3987.48
1949.94	23	3899.88
1908.00	15	3816.00
1978.20	70	3956.40
1997.04	53	3994.08
1978.20	42	3956.40

*** The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.**

PRODUCT RANGE

Profiles & Angles

Flat Dimensions (100*12 -150*30)

Flat Dimensions (mm)	Unit Weight	Number of Pieces / Bundle (6m)
100x12	9.420	35
100x15	11.780	28
100x20	15.700	21
100xX30	23.550	14
110x10	8.630	38
120x10	9.420	35
120x12	11.300	29
120x20	18.840	17
120x30	28.260	11
150x12	14.130	23
150x20	23.550	14
150x30	35.330	9

Bundle Weight (Kg)* 6 Meters	Number of Pieces / Bundle (12m)	Bundle Weight (Kg)* 12 Meters
1978.20	35	3956.40
1979.04	28	3958.08
1978.20	21	3956.40
1978.20	14	3956.40
1967.64	38	3935.28
1978.20	35	3956.40
1966.20	29	3932.40
1921.68	17	3843.36
1865.16	11	3730.32
1949.94	23	3899.88
1978.20	14	3956.40
1907.82	9	3815.64

* The Bundle Weight is for reference purposes only, and the weight is determined based on the actual figure in loading.

COMPETITIVE ADVANTAGE

EASPEC is the Beshay Steel group production specification that surpasses all known standards.

Our finely engineered products are renowned for their superior quality, not only because their strength and composition meet the specifications but because they are engineered on the micro scale.

OUR PRODUCTS ARE SUPERIOR FROM THE INSIDE OUT

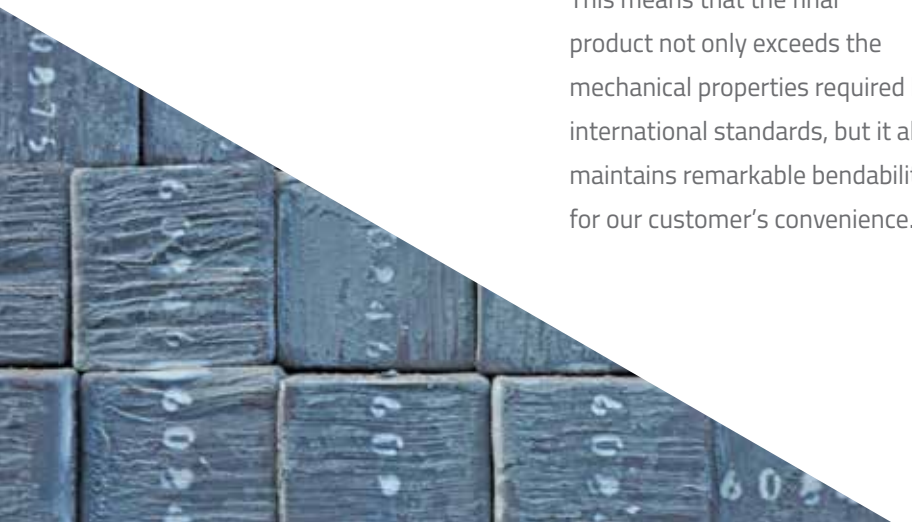
The microstructure of our re-bars is composed of a tempered martensitic shell, which provides the required strength and hardness, while the core is a more ductile ferritic-pearlitic structure. Therefore our steel re-bars are not only strong; but bendable enough for the convenience of our customers. Not only do we engineer the inside of the bar, we also take great care of the outer features. We use very costly, high wear resistant rolls in order to ensure perfect geometry of the bar ribs and therefore ensure excellent bonding with concrete.

PRODUCT MICROSTRUCTURE

The microstructure of the re-bars is carefully engineered by the thermo-mechanical treatment that is applied from the very beginning of the rolling process. The chemically homogeneous billets are soaked at a specific temperature where a phase transformation to the formable Austenite phase is provoked.

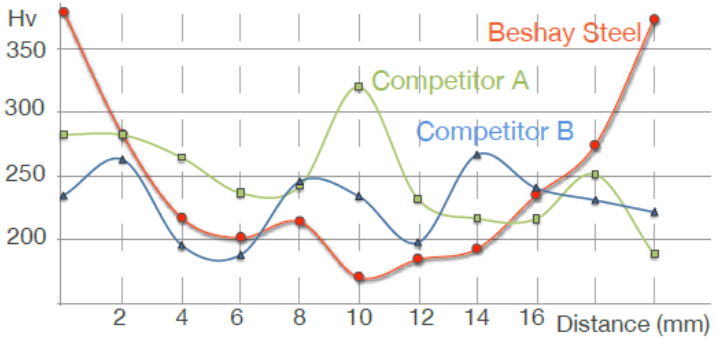
These austenitic billets are then passed through the roughing and intermediate rolling stages where the required section reduction is achieved.
The bars then go through a thermo mechanical treatment stage, where the bar's outer shell is transformed to a strong tempered-martensitic structure while the core remains a ductile pearlitic-ferritic phase.
This means that the final product not only exceeds the mechanical properties required by international standards, but it also maintains remarkable bendability for our customer's convenience.

Samples from 2 main local competitors where compared to Beshay Steel. This was carried out by measuring the micro hardness across the bar diameter in 2mm iterations.
The Beshay Steel bars showed significantly higher hardness values in the outer tempered martensitic shell than the samples produced by both competitors.
The graph also shows that the hardness values decrease smoothly towards the centre of the bar, where the ductile ferritic-pearlitic structure is present.
This strict microstructure control enables Beshay Steel to maintain excellent mechanical properties with no compromises to our customer's needs.



VACUUM DEGASSING TECHNOLOGY

Our Meltshop has an integrated vacuum degassing plant that is connected to gratify the demands for the production of pure and high-quality steel. This keeps us on top of competition with the newest techniques of high quality steel to have the wide range of production grades. Throughout the vacuum action, the hydrogen, nitrogen, oxygen, and sulfur contents are condensed in diverse process steps relying on the melt composition. A vacuum alloy hopper system permits for compositional modifications. High alloy yields and decent homogenization are distinctive characteristics of this process. A freeboard of 600–1,200 mm is compulsory, reliant on the metallurgical reactions in the ladle. We are proud to be using such a system as it offers all what the customer needs.



SUSTAINABILITY

Energy

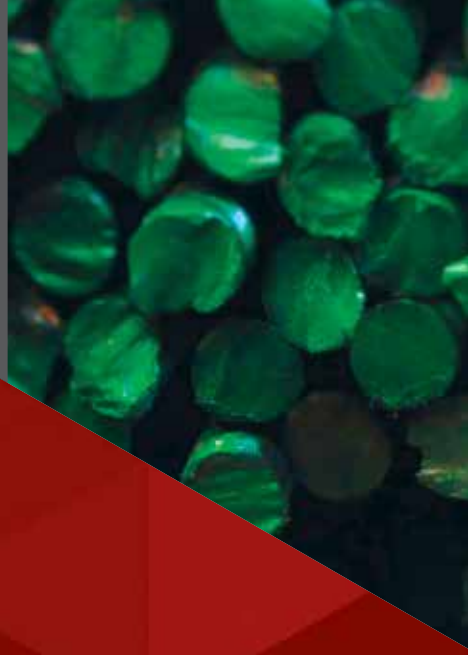
Steel making is a very energy demanding process. This is why we continuously invest into improving our equipment in order to maintain maximum efficiency and reduce energy consumptions, whether electrical or gas.

The Environment

During Steel Making, emissions of CO, CO2, SOX and NOX are a known by product. Beshay Steel invested into three superior de-dusting systems, with a suction capacity of 7.3 million Nm3/h. This allows us to reduce and filter our emissions in order to provide a safe working environment for our employees and decrease our impact on the environment.

This off-gas is constantly monitored and the steel making process is adjusted accordingly to minimise those emissions even further.

GET IN TOUCH



بشاي للصلب
BESHAY STEEL

BESHAY STEEL GROUP

6 Farid Semika St., Heliopolis
Cairo,
Egypt.
11351
Tel.: +2(02) 23481300
Fax: +2(02) 23481333/4
www.beshaysteel.com

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