



Stainless Steel & Nickel Alloy

- Round & Profile Wires
- Bar & Rebars

STRENGTHENING THE **FUTURE...**
...WITH THE POWER OF **STAINLESS**

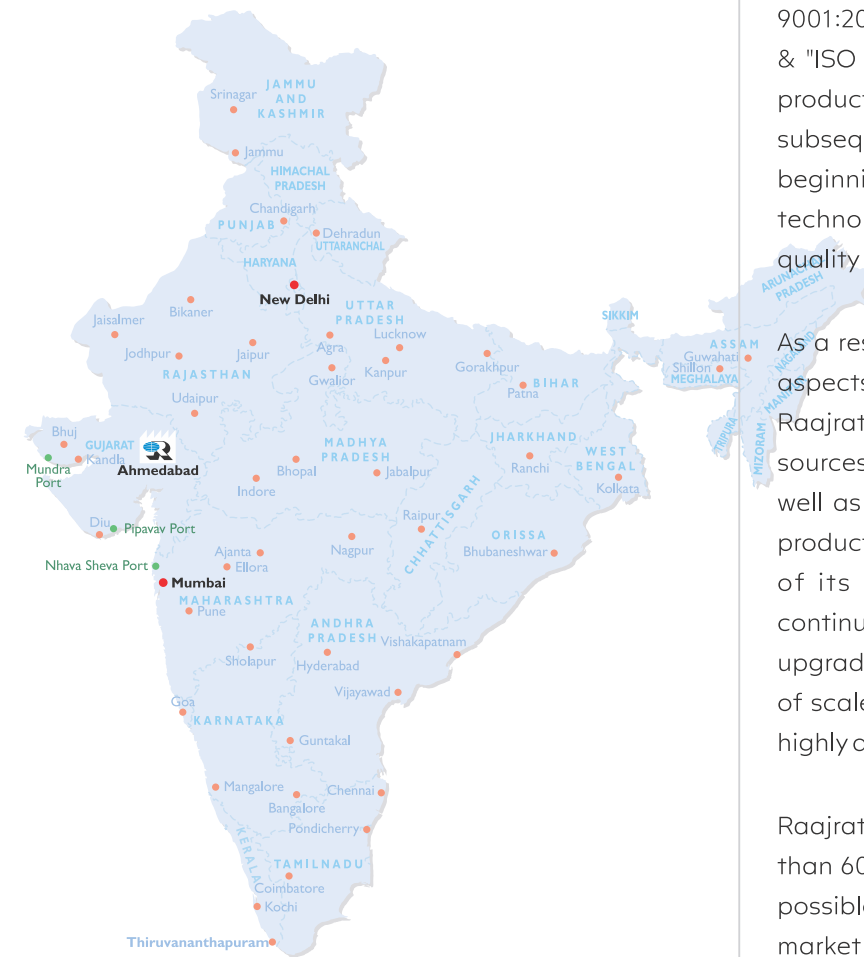
FUTURE
STAINLESS



Raajratna[®]
Metal Industries Limited

WE USE **GREEN POWER...** & 
SAVE **ENVIRONMENT**

GREEN
POWER



Raajratna Metal Industries Limited is an "ISO 9001:2015", "ISO 14001:2015", "IATF 16949:2016" & "ISO 13485:2016" certified company, started production of stainless steel wires in 1990 and subsequently diversified to bright bars. Since it's beginning Raajratna has used state-of-the art technology with strong emphasis on product quality and customer satisfaction.

As a result of continuous improvement in every aspects of business within a short span, today Raajratna has become one of the most reliable sources of quality products both in domestic as well as in international market with an annual production capacity of **55,000 tonnes**. Because of its large manufacturing capacity and continuous product innovation with the regular upgradation, Raajratna has achieved economy of scale and is able to serve customers having highly diversified requirements.

Raajratna exports it's 70% of production to more than 60 countries across the globe. It has been possible due to Raajratna's ability to meet exact market requirements and strict adherence to delivery schedule with an individual attention to every customers.



Raajratna manufactures all types of stainless steel & nickel alloy wires for various applications. It has got a state of the art facility for manufacturing and maintaining stringent quality parameters, considering the end application of the wires. It also offers customised packing styles for easy handling and storage. We have product range as follows :

Wires | General | Spring | Welding | Metallising | Cladding | Cold Heading | Shape/Profile | Fine | Super Fine

Bars | Bright (Round) | Square | Hex | Flat

Rebars | Reinforcement Bar



Stainless Steel & Nickel Alloy Wires

Size Range : 1.00 mm to 30.00 mm (0.0393" - 1.181")
Grades : Stainless Steel, Nickel Alloy & Duplex Steel
Finish : Soft annealed - 1/4 hard, 1/2 hard, 3/4 hard, full hard (Matte or Bright Finish)

Stainless Steel & Nickel Alloy Fine & Super Fine Wires

Size Range : 0.015 mm to 1.00 mm (0.00059" - 0.0393")
Grades : Stainless Steel, Nickel Alloy & Duplex Steel
Finish : Soft annealed - 1/2 hard, 3/4 hard, full hard (Bright Finish)



Stainless Steel & Nickel Alloy Wires

In Cut-Length

Size Range : 0.20mm to 2.00mm (0.0078" - 0.078")
Grades : Stainless Steel, Nickel Alloy & Duplex Steel
Finish : Bright Wires

Stainless Steel & Nickel Alloy Bright Bars

Size Range : 2.00mm to 50.00mm (0.078" - 2.00")
Grades : Stainless Steel, Nickel Alloy & Duplex Steel
Finish : Polished Bars, Ground Bars, Chamfered Bars

Stainless Steel & Nickel Alloy Solid Sections

Hex Size Range : A/F 2.00mm to 22.00mm (0.08" - 0.80")
Square Size Range : 1.18mm to 18.00mm (0.046" - 0.70")
Grades : Stainless Steel, Nickel Alloy & Duplex Steel
Supply Condition : Coils of 10 to 1,000 Kgs.
Straight Length : 1 Meter to 6 Meter Max.



Stainless Steel Colour Coated Wires

Size Range : 0.20 to 5.00mm (0.08" - 0.196")
Colour : Any colour as per customer's requirement
Grades : All stainless steel grades and high-Ni grade wires as per customer's requirement
Packing : 1.60mm to 5.0mm dia.
 In coil form, if required can also be given on spools.
 0.20mm to 1.20mm dia. on spools as required



Stainless Steel & Nickel Alloy Spring Wires

Raajratna manufactures high quality spring wires. Spring wires are supplied in sizes from 0.06 mm to 22.0 mm in various grades & finish. Raajratna can also supply **Ni-coated** Spring Wires from 0.15 mm to 2.00 mm. The wires can also be supplied from shaved wire & **Eddy current testing**.

Nickel Coated Wires

Nickel is one of the most common metal coating for Stainless Steel Spring Wires. It gives good lubrication during coiling operation and improves the precision in spring coiling, gives better yield of the production and lowers wear of coiling tools. It also has very good soldering properties after cleaning and there is no discoloration of the springs after tempering.

All Raajratna standard grades can be supplied with Nickel coating in coated (powder drawn) or bright (diamond drawn in oil) condition. Nitric acid will dissolve the nickel layer completely and nickel is not corrosion resistant in oxidizing acid environment.

Both Coated & Bright Nickel coated Spring Wires have following advantage :

- Very good lubrication at high coiling speeds
- No discoloration of the surface after heat treatment
- Cleaning of the springs in alkaline solutions
- After de-greasing, good soldering properties
- No dust during coiling resulting in cleaner environment in case of coated wires.

Diameter in mm	Surface Finish	Standards	Grade			Temper
			AISI	JIS	DIN	
0.06-22.00	Stearate Coated Bright	ASTM A313 EN 10270-3 EN-ISO-6931-1 JIS G4314/BS 2056 DIN 17224	302	SUS302	1.4310	Half Hard
			304/304H	SUS304	1.4301	3/4 Hard
			316	SUS316	1.4401	Full Hard
			631(17-7PH)	SUS631J1	1.4568	

* We also supply Nitronic 50, Inconel X-750, AISI 301 and AISI 904L grades on request.

Stainless Steel Spring Wires can be supplied with normal (NS) and high (HS) tensile strength

Size in mm	Finish	Plastic Spool	Wooden Spool	Metal Spool	Coil Form
0.06 - 0.20	Bright	✓	-	-	-
0.20 - 0.60	Bright	✓	✓	✓	✓
0.60 - 2.80	Bright	-	✓	✓	✓
0.18 - 0.35	Stearate Coated	✓	-	-	✓
0.35 - 0.70	Stearate Coated	✓	✓	✓	✓
0.80 - 4.00	Stearate Coated	-	✓	✓	✓
4.00 - 22.00	Stearate Coated	-	-	-	✓

Surface Finish

The wires can be drawn either in powder or in oil resulting in a COATED or BRIGHT surface finish. Both these finishes are also achieved with a thin film of Nickel which results in a wire with very good lubricating properties.

1/2 Hard & 3/4 Hard Bright Wires

Size in mm	Finish	Coil & Spool	Application
0.50 - 3.50	Bright	✓	Fishing Hook, Heli Coil Springs etc.

Stainless Steel & Nickel Alloy Spring Wires can be supplied as under



Plastic Spool

Type : DIN 100, 125,
160, 200, 250,
300 & 355
Weight : 1 - 40 kgs



Wooden Reel

Type : 550 / 760K
Weight : 100 - 400 kgs



Plastic Spool

Type : SH460K/SH390K
Weight : 15 - 40 kgs



Coils

Type : As per request
Weight : 3 - 1000 kgs



Compact Coil

Type : Coil with Core
Weight : 250 - 1000 kgs



Steel Reel

Type : 550 / 760K
Weight : 100 - 500 kgs

* Customised packing available on request.

Member of



Spring Wire Packing

Diameter		Packing	Approx. Weight	Surface Finish
in mm	in inch			
0.06 - 0.15	0.002 - 0.006	DIN 100 / 125	1 - 3 Kgs	Bright
0.15 - 0.20	0.006 - 0.008	DIN 160 / SH 390	4 - 6 / 15 Kgs	Bright / Coated
0.20 - 0.30	0.008 - 0.012	Coil / DIN 200 / SH 460	10 - 12 / 35 - 40 Kgs	Bright / Coated
0.30 - 0.60	0.012 - 0.024	Coil / DIN 250 / SH 460	18-20/15-20/40 Kgs	Bright / Coated
0.20 - 0.50	0.008 - 0.020	SH 390 / SH 460	15 / 40 Kgs	Bright / Coated
0.50 - 4.00	0.020 - 0.160	Wooden Spool/Metal Spool DIN 550 / 760	100 - 400 Kgs	Coated
0.50 - 0.75	0.020 - 0.030	Coil	15 - 50 Kgs	Bright / Coated
0.80 - 0.90	0.032 - 0.036	Coil	40 - 100 Kgs	Bright / Coated
1.00 - 1.50	0.040 - 0.060	Coil	50 - 150 Kgs	Bright / Coated
1.50 - 1.70	0.060 - 0.070	Coil	50 - 200 Kgs	Bright / Coated
1.70 - 2.80	0.070 - 0.110	Coil	100 - 1000 Kgs	Bright / Coated
2.80 - 4.00	0.110 - 0.160	Coil	200 - 1000 Kgs	Coated
4.00 - 22.00	0.160 - 0.780	Coil	250 - 1000 Kgs	Coated
1.20 - 12.00	0.080 - 0.470	Euro Coil	250 - 1000 Kgs	Coated
0.35 - 4.00	0.014 - 0.160	Wooden Spool/Metal Spool DIN 550 / 760	100 - 500 Kgs	Coated

Metal Spool Dimension

Flange Dia		Barrel Diameter		Bore		Traverse (Width)	
in mm	in inch	in mm	in inch	in mm	in inch	in mm	in inch
550	22.00	300	12.00	40	1.57	280	11.00
760	30.00	430	17.00	32/40	1.26/1.57	240/290/360	9.5/11.40/14.20

Wooden Spool Dimension

Flange Dia		Barrel Diameter		Bore		Traverse (Width)	
in mm	in inch	in mm	in inch	in mm	in inch	in mm	in inch
550	22.00	300	12.00	32	1.25	230	9.00
760	30.00	430	17.00	32	1.25	230	9.00

SH 460 & SH 390 Spool Dimension

Flange Dia		Barrel Diameter		Bore		Traverse (Width)	
in mm	in inch	in mm	in inch	in mm	in inch	in mm	in inch
460	18.00	320	12.60	305	12.00	90	3.55
390	15.00	320	12.60	305	12.00	90	3.55

Stainless Steel & Nickel Alloy Welding Wires

MIG Wires

The MIG wires are supplied in bright as well as in matte finish and the wire is specially cleaned to avoid weld contamination. MIG wires can be supplied in plastic spool as well as on metallic baskets. The wires have suitable cast / helix to ensure perfect "Pay-Off".



Size (mm)	Size (inch)	Wire Basket BS300 / K300	Plastic Spool SD300	Basket Spool BS300	Plastic Spool SD200	Plastic Spool SD100
0.60	0.025"					
0.80	0.030"					
0.90	0.035"					
1.00	0.040"					
1.20	0.045"					
1.60	0.062"	12.5 kgs/15 kgs	12.5 kgs/15 kgs/20 kgs	27 kgs	5 kgs	1 kgs
		25 lbs/30 lbs	25 lbs/30 lbs/40 lbs	59.5 lbs	10 lbs	2 lbs



TIG Wires

Raajratna manufactures high quality TIG wires in 36" & 1,000 mm cut lengths, with embossing on both sides 1.2 mm and above bars as per customer's requirements. TIG wires are supplied in bright and clean finish to avoid all possible contamination.

Size (mm)	Size (inch)	Plastic Tubes
0.80	0.035"	
1.00	0.040"	
1.20	0.045"	
1.60	0.062"	
2.00	0.080"	
2.40	0.093"	
3.20	0.125"	
4.00	0.157"	
5.00	0.187"	
		5 kgs / 10 lbs

SAW Wires

Raajratna manufactures clean & layer wound wire for submerged arc welding from 1.60 mm (0.0625") to 5.00 mm (0.1875") in various grades in bright as well as in matte finish. The wires tensile strength, helix and cast diameter is engineered to precise tolerance to ensure perfect "Pay-Off".



Size (mm)	Size (inch)	Fraction	Corrugated Ring	Wire Basket K415
1.60	0.062"	1/16"		
2.00	0.078"	-		
2.40	0.094"	3/32"		
3.20	0.125"	1/8"		
4.00	0.156"	5/32"		
5.00	0.187"	3/16"	25 kgs 60 lbs	25 kgs 60 lbs

Core Wires

Raajratna manufactures high quality stainless steel & nickel alloy wire for welding electrodes in sizes 1.60 mm (0.062") – 5.00 mm (0.187") in bright as well as in matte finish.

The wire for welding electrodes are supplied in coil as well as in cut length as per AWS, DIN, BS, JIS and other equivalent international standards or as per the customer's requirement.

The commonly manufactured grades are AWS ER307, ER308, ER308L, ER309, ER309L, ER309LMo, ER310, ER312, ER316, ER316L, ER317L, ER318, ER347, ER430 with low and normal silicon contents.

Size (mm)	Size (inch)	Fraction	Coil Form	Cut Length
2.00	0.078"	-		
2.40	0.094"	3/32"		
2.50	0.098"	-		
3.15	0.124"	-		
3.20	0.125"	1/8"		
4.00	0.156"	5/32"		
5.00	0.187"	3/16"		
			As per customer's request	

Bulk Pay-Off Systems

Raajratna manufactures stainless steel MIG wires in bulk Pay-Off systems for higher productivity and robotic applications with 100 – 300 kgs. weight.

Sizes from 0.80 mm (0.030") – 1.60 mm (0.062") in various grades in bright as well as in matte finish.



PAIL PACK DRUMS

Packaging

The wires are supplied in 100 – 500 kgs. on Metal Spool / Wooden Spool / Drums Bulk Reels as well as in Pay-Off drums to prevent damage.



Customized Packing

We can provide customized packing and labelling as per customers request.

Cladding & Metallising

We supply wires of ER420, 410NiMo, 309LMo, 316L, Alloy 625, Alloy 825 etc. for overlaying / cladding and metallising processes.



Cladding



Cladding



Metallising



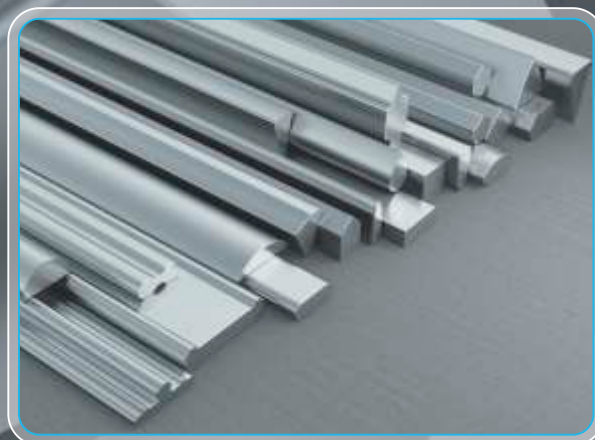
Metallising

Welding Approvals



STAINLESS STEEL & NICKEL ALLOY SHAPE/PROFILE WIRES

SHAPE/PROFILE WIRES



Rajratna manufactures all types of stainless steel & nickel alloy wires for various applications. At Rajratna, we have a state of the art facility for manufacturing and maintaining stringent quality parameters, considering the end application of wires. We have now started manufacturing wide range of shapes/profile with precise control on dimensions to meet the customers' requirements and uses of different shapes in applications like Filtration in petrochemical, oil & gas, water, pulp & paper and food industries, breweries, mining industries, architecture, home appliances, building industry, textile machineries, automobile industries, anti-slip wire and general purpose.

Our Standard range of Shape/Profile : 0.03 mm² to 250.00 mm² Cross Section with a maximum Width 60.00 mm.

The Shapes are produced on an Universal Cold Rolling Mill with following highlights :

- Continuous dimensional checks with CONTACT / LASER type measuring system during rolling for highest accuracy
- Close Dimensional controls up to ± 0.010 mm both on Width & Thickness can be achieved as per customer's requirement
- Dimensional checks of the finished shapes is done on the most latest Profile Projector and CMM.

Dimensions are measured with LASER Caliper online and histogram reports can be provided on request.

* Hot Rolled Shape / Profile to start soon.

Shapes

Following shapes can be produced as per customer's requirement :

- Flat / Rectangular Shapes : Thickness : Min. 0.05 mm to Max. 16.00 mm with Round or Flat edges
Width : Max. 60.00 mm
- Square Shapes : Min. 1.18 mm to Max. 12.00 mm with Round or Flat edges
- Triangle, Oval, Half Round, Hexagonal, Tear Drop & Diamond shapes with maximum width 15.00 mm
- Other special complex profiles can be produced as per the drawings
- We can supply profiles from Annealed to Hard condition

Packaging

Shape/Profile & flat wires are packed in Coil of 50-500kgs, Spools of 10-1000kgs and upto 4500 kgs on Metal Spool on request & Bars upto 6 meter cut length.

Any special requirement in packing or different cut lengths can be supplied as per customer's requests.

STAINLESS STEEL & DUPLEX REINFORCEMENT BARS & COILS

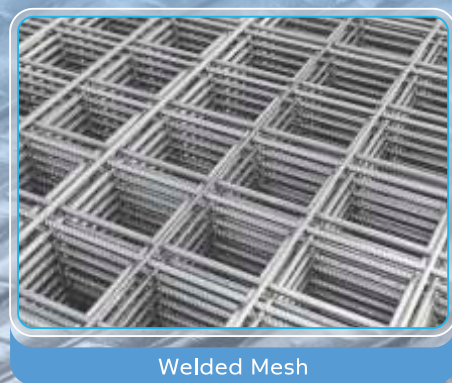
REINFORCEMENT BARS & COILS



Coil



We can produce Cut & Bent Rebars



Welded Mesh



Hot Rolled Rebar



Fibre



Tie Wire

Proud to be the First Company in India to be accredited with CARES Certificate
in Scope of Stainless Steel Cold Rolled Ribbed Coil and Decoiled Product*

- Scope : BS 6744 Grade 500 Cold Rolled Ribbed Coil & Bar - 5 to 20 mm - 1.4301 (304), 1.4429 (316LN) &1.4436 (316)
- Scope : BS 6744 Grade 500 Cold Rolled Ribbed Coil & Bar - 6 to 20 mm - 1.4401 & 1.4404
- Scope : BS 6744 Grade 500 Cold Rolled Ribbed Coil & Bar - 6 to 25mm - 1.4362
- Hot Rolled Ribbed Bar - 10.0 to 32.0 mm - 1.4362 (Duplex)
- Scope : NS 3576-5:2012 Grade B500NCR
Group ii Diameter 6 to 25mm Coils and Bars
Group iv Diameter 6 to 25mm Coils and Bars
- Cares approval is under process for Hot Rolled Ribbed Bar 25 to 32mm 1.4301 bars.



Chemical Composition

Production Process	Grade	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	N	Ti
		Max	Max	Max	Max	Max						Min
		%	%	%	%	%	%	%	%	%	%	%
Cold Drawn / Hot Rolled	1.4003-410L	0.030	1.50	0.040	0.030	1.00	10.50-12.50	0.30-1.00	-	-	0.30	-
	1.4301-304	0.080	2.00	0.045	0.030	1.00	18.00-20.00	8.00-10.00	-	-	0.11	-
	1.4401-316/1.4404-316L	0.080	2.00	0.045	0.030	1.00	16.00-18.00	10.00-14.00	-	2.00-3.00	0.11	-
	1.4429-316LN (2.5 Mo)	0.030	2.00	0.045	0.015	1.00	16.50-18.50	11.00-14.00	-	2.50-3.00	0.12-0.22	-
	1.4436-316 (2.5 Mo)	0.050	2.00	0.045	0.030	1.00	16.50-18.50	10.50-13.00	-	2.50-3.00	0.11	-
	1.4571-316Ti	0.080	2.00	0.045	0.030	1.00	16.00-18.00	10.00-14.00	-	2.00-3.00	0.11	5xC
	1.4362-2304 [Duplex]	0.030	2.00	0.030	0.020	1.00	22.00-24.00	3.50-5.50	0.10-0.60	0.10-0.60	0.05-0.20	-
	1.4462-2205 [Duplex]	0.030	2.00	0.030	0.020	1.00	21.00-23.00	4.50-6.50	0.10-0.60	2.50-3.50	0.10-0.22	-

Mechanical Properties

Production Process	Grade	Size in MM	Tensile Strength N/MM ²	Yield Strength N/MM ²	% Elongation A5	% Elongation Agt	T.S. / 0.2% Yield
					≥	≥	≥
Cold Drawn	1.4301-304	3 - 16	≥600	≥500	14	5	1.08
	1.4401-316/1.4404-316L	3 - 25	≥600	≥500	14	5	1.08
	1.4429-316LN	3 - 20	≥600	≥500	14	5	1.08
	1.4436-316	3 - 20	≥600	≥500	14	5	1.08
	1.4571-316Ti	3 - 25	≥600	≥500	14	5	1.08
	1.4362 [Duplex]	3 - 25	≥600	≥600	14	5	1.08
	1.4462 [Duplex] *	3 - 25	≥600	≥600	14	5	1.08
	1.4301-304	16 - 25	≥600	≥500	14	5	1.08
Hot Rolled	1.4301-304	20 - 32	≥600	≥500	14	5	1.08
	1.4401-316	20 - 32	≥600	≥500	14	5	1.08
	1.4429-316LN	20 - 32	≥600	≥500	14	5	1.08
	1.4436-316	20 - 32	≥600	≥500	14	5	1.08
	1.4571-316Ti	20 - 32	≥600	≥500	14	5	1.08
	1.4362 [Duplex]	20 - 32	≥600	≥500	14	5	1.08
	1.4462 [Duplex]	20 - 32	≥600	≥500	14	5	1.08

Elongation : A5 = Diameter x 5 marked before tension measured after tension to fracture measured across fracture.
We can also supply Stainless Steel rebars / coils as per ASTM A 955 / SFS 1259 & EN standards.

Welded Mesh Sizes

Grade	Rebar Diameter in (mm)	Mesh Length in (mm)	Mesh Width in (mm)	Mesh Size in (mm)	Overhand Length in (mm)	Overhang Width in (mm)	Nominal Weight (Kg. / Item)
1.4301	3.00	5000	x 2150	50 x 50	25	25	24.10
1.4301	3.00	5000	x 2150	75 x 75	25	25	16.19
1.4301	4.00	5000	x 2150	50 x 50	25	25	45.00
1.4301	4.00	5000	x 2150	100 x 100	50	25	22.62
1.4301	4.00	5000	x 2150	150 x 150	25	25	14.96
1.4362	5.00	5000	x 2150	100 x 100	50	25	34.80
1.4362	5.00	5000	x 2150	150 x 150	25	25	23.70
1.4362	6.00	5000	x 2150	100 x 100	50	25	48.94
1.4362	6.00	5000	x 2150	150 x 150	25	25	33.32
1.4362	8.00	5000	x 2150	100 x 100	50	25	87.00
1.4362	8.00	5000	x 2150	150 x 150	25	25	59.24

Weight Metre

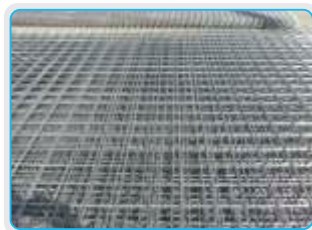
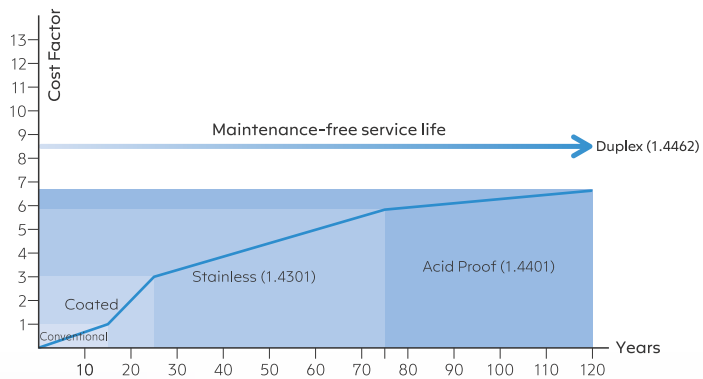
Production Process Cold Drawn / Hot Rolled	Dimensions mm	Weight / Metre Kgs	Coils Kgs Max.	Bars M Max.	Bar Marking 1.4301 (304)	Bar Marking 1.4436 (316)
	3	0.056	700	12		
	4	0.100	700	12		
	5	0.155	1600	12		
	6	0.224	1600	12		
	7	0.304	1600	12		
	8	0.397	1600	12		
	10	0.620	1600	12		
	12	0.893	1600	12		
	14	1.216	1600	12		
	16	1.589	1600	12		
	20	2.482	1600	12		
	25	3.878	1600	12		
	30	5.585	NA	12		
	32	6.353	NA	12		
	35	7.601	NA	12		
	40	9.927	NA	12		
	50	15.512	NA	12		

Choice of Reinforcing

The grade of reinforcement steel will depend upon type of corrosive atmosphere.

- For moderate atmosphere high yield reinforcement steel like 1.4301 (304) can be used
- For more severe corrosive atmospheres 1.4401 (316), 1.4429 (316LN), 1.4436 (316) & 1.4571 (316Ti) can be used
- For high aggressive atmospheres duplex steel 1.4362 (2304), 1.4462 (2205) is recommended

Reinforcement Cost & Life Span Chart



Off Shore Constructions



Bridge Constructions



Hospital Constructions



Jetty Constructions

Stainless Steel & Nickel Alloy Cold Heading Wires

Raajratna manufactures high quality cold heading wire from 1.00 – 25.00 mm with soap drawn skin pass uniform coating as well as from 1.00 – 10.00 mm in annealed condition in various grades.

The cold heading wires are manufactured as per ASTM A 493, AMS 5853 & JIS G 4315 standard as well as other equivalent international standards.

The wires are free from surface imperfections like seam / crack and wire drawing defects such as scratches, die marks, heavy pitting, etc. The selection of grade depends on the final application and type of products to be manufactured. We can also provide technical assistance to customers, in case of any difficulty.

Surface Finish & Application

Grade	Diameter	Surface Finish	Applications
302HQ	1.00 – 25.00mm	Soft / Coated / Copper / Copper Moly Coated/ E-Coated	Wood Screws, Bolts, Rivets, Nuts, Automotive Industries, House Hold Appliances, Aeronautics, Building & Construction, etc...
XM7			
304HC, 305			
304, 316, 316L			
304			
321			
410, 430			
431			
316Cu			
304J3S			
A 286			
631			

* We can also supply shaved wire as per customer’s requirement.

Coating

We are using coating salts and drawing lubricants from CONDAT and also Japanese origin (There is no hazardous coating or lubricant used).

We can also supply Copper plated / moly coated / e-coated wires up to 13.00 mm diameter for cold heading applications.



Coil

Type : Coated
Weight : 250 – 500 kgs.

Type : Annealed
Weight : 200 – 300 kgs.



Steel Carrier

2 to 3 Coils on one carrier
Weight : 500 – 1500 kgs.

* Customised packing available on request.

Shaved Wires (Wire from Shaved Wire Rod)

Raajratna can do Shaving of wire rods from January 2018 and start supplying wires with practically Defect Free surface using Shaved Wire rod for cold heading and also spring wires where defect free surface is a must for achieving superior spring characteristics.

The shaving machine can also be used for shaving wire rods of Aluminum, Copper, Nickel and other special grades on request.



Applications

- S S Screw / Micro Screw & Rivets
- 446 Grade Wires for Glass to Metal Seal
- S S Spring Wires
- Medical & Aerospace



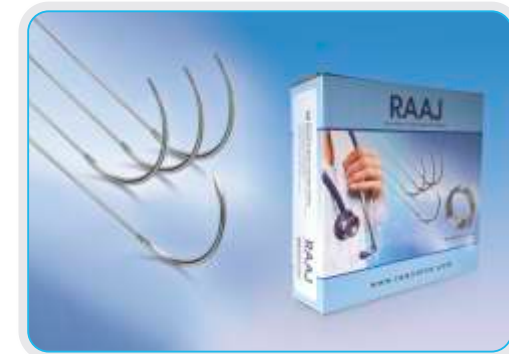
ISO 13485: 2016 Certified

Wires & Bars for Medical Applications

Surgical Needle & Sutures Wires

High Strengths & Premium Quality

Grades : 302, 316LVM & 420
 Sizes : 0.30 mm to 3.00 mm
 Finish : Full Hard with high Tensile, Bright finish.
 Packing : In coil, On Spools & In cut length (25 mm to 1200 mm)
 Standards : ASTM A 313, ISO 5832-1 & EN 10270-3



- Orthopaedic Implants
- Cardiac Stents
- Dental Implants
- Catheters
- Bone Pins
- Suture
- Surgical Clips & Staples
- Stylets
- Orthopedic Cables
- Lancets
- Cannulas and Trocars
- Guide Wires
- Drill Bits
- Surgical Instruments
- and many more...

Ophthalmic & Surgical Blades

High quality Stainless Steel Wire for Such Applications

Grade : 420B (420J2) & 420
 Size : 0.20 to 3.00 mm
 Specs : The standard tensile will be provided or as per the customer's specifications
 Finish : Bright & Matte
 Packing : In coil, On Spools & In cut length

Guide Wire & Catheters

Grade : 302, 304V, 304, 316LVM, 316LRM & 1.4441
 Size : 0.20 mm to 3.00 mm
 Specs : Ideal surface properties, flexibility & good ductility will be provided
 Finish : Bright
 Packing : On Spools & Wires in Cut Length.

- Bright Material with High Tensile strength can be given.

Orthopedic Implants & Surgical Instruments

Grade for Implants : 316L, 316LRM, 316LVM & 1.4441
 Grade for Instruments : 304, 420B & 17-4 Ph
 Bar Sizes : 2.00 mm to 55.00 mm
 Profiles Sizes : 1.00 mm² to 100.00 mm² cross section with Maximum width 30.00 mm
 Standards : ISO 5832-1, ASTM F 138 & ASTM F899

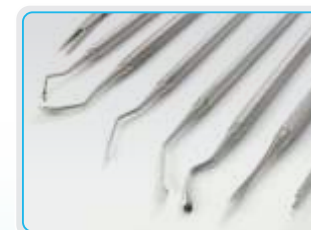
- Closer or different tolerance according to customer requirements
- Centerless ground polished
- Higher mechanical, technological or physical values according to requirements
- Providing Chamfered Bars
- Bar length can be provided up to 6 metres
- Square Bars, Flat Bars, Hexagonal Bars can be provided as per the customer's requirements



Orthopedic Implants Strips



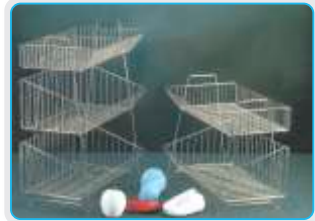
Screws



Surgical Tools



Plates for Body



Kitchenware and Basket



Staples



Balls



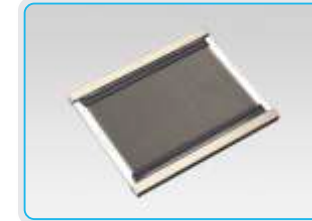
Nails



Spring Washer



Helicoil Inserts



Reed for Textile Looms



Piston Rings



Automobile Flexible Shafts



Spokes



Screens & Filters



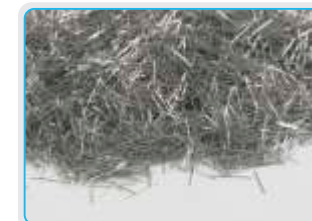
Lashing Wire (Cheese Coil)



Knitting



Wool



Fibre



Sub-Marine Cable



Flexible Connectors



Wire Ropes



Springs



Chains



Ball Point Pen Tip



Free Cutting



Welding Electrodes



Fasteners

Industries Like...



Wire Mesh



Conveyor Belts



Wall Ties



Braiding Hoses



Automobile



Power Plants



Ship Building



Medical



Surgical Needles



Surgical Equipments



Orthopaedic Implants



Stent Wire



Aviation



Textile



Watch



Stainless Steel Industrial Brushes

Stainless Steel & Nickel Alloy Wires

Stainless steel wires in coils are wrapped with plastic stretch film / HDPE and then packed in plywood boxes / wooden pallets or supplied on carriers as per customer's requirements. The wires can also be supplied in corrugated drums / wooden or steel reels.

Type	Delivery Condition	Diameter in mm	Weight min./max. in kgs.	Inside Dia. in mm
SPOOL	Annealed	0.025 to 1.60	DIN-Spools sizes and weights upon request	
	Bright hard drawn (For springs / ropes)	0.06 to 0.60		
	MIG wire, bright lightly drawn	0.60 to 1.60	1 / 15	DIN-Spools
WOODEN REEL	Annealed	1.00 to 3.00	200 / 400	-
	Bright drawn	0.80 to 3.00	200 / 400	-
WOODEN / STEEL REEL	Full hard for spring	0.25 to 2.80	100 / 500	-
COIL	Annealed	0.80 to 2.00	50 / 100	300 / 400
		2.00 to 3.00	200 / 400	500 / 600
		3.00 to 6.00	300 / 500	500 / 600
		6.00 to 10.00	300 / 500	500 / 800
	Bright drawn	1.50 to 2.00	50 / 100	350 / 600
		2.00 to 6.00	200 / 400	500 / 600
		6.00 to 25.00	300 / 500	700 / 750
	Dry drawn, full hard for springs & ropes	0.50 to 0.70	15 / 30	230 / 250
		0.75 to 1.20	30 / 80	300 / 400
		1.30 to 1.70	50 / 100	300 / 400
		1.80 to 22.00	200 min.	500 min.
DRUM / PAY OFF PAPER CORE	Annealed, light or hard drawn	0.75 to 1.60	100 / 200	330



Euro Coil



Steel Carrier



Wooden Reels on Pallets



Steel Reel



Cardboard Drum



Coils on Pallet



Core Packing or Pallets



Fine Wires in Wooden Box



Fine Wires in Corrugated Box



Carrier



Carrier (Redraw Wire)



Coil



Spool-DIN 200



Spool-US 250



Spool-NS 5 & NS 10



Spool-BS 60



Spool-DIN 80



Spool-HK 79/45



Spool-DIN 355



Spool-PT-10



Spool-PT-15



Spool-PT-25

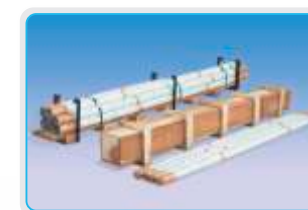


Spool-PT-45



Spool-PT 90

* Full PT, DIN, US, BS & NS series of plastic / metal spools are also available on request.



Bright Bars
Wooden Box/Euro Pallets



MIG & Core Wire in
Wooden Box



TIG Bars in
Plastic Tubes



Shaped Wires
in Coil with Hook



Series	Type Grade	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	N	Ti	Others	Equivalent International Standards				
		Max %	Max %	Max %	Max %	Max %	%	%	%	Max %	Max %	%	%	W. Nr.	JIS	BS	AFNOR	UNI
200	201 (3%Ni)	0.15	7.00 - 9.00	0.100	0.030	1.00	14.0 - 17.0	3.00 - 4.00	1.50 - 2.50	0.30	0.25	-	-	-	-	-	-	-
	AISI 201	0.15	5.50 - 7.50	0.060	0.030	0.75	16.0 - 18.0	3.50 - 5.50	0.75	-	0.25	-	-	1.4372	-	-	-	-
	AISI 202	0.15	7.50 - 10.00	0.060	0.030	1.00	17.0 - 19.0	4.00 - 6.00	-	-	0.25	-	-	-	-	-	-	-
	204 Cu	0.08	6.50 - 8.50	0.060	0.030	2.00	16.0 - 17.0	1.50 - 3.00	2.00 - 3.00	0.30	0.25	-	-	1.4597	-	-	-	-
	RAAJ2348	0.15	12.00 - 14.00	0.020	0.020	0.75	14.0 - 15.0	1.00 - 1.50	1.50 - 2.00	0.80	0.25	-	-	1.4597	-	-	-	-

	Type Grade	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	N	Ti	Others	Equivalent International Standards				
		Max %	Max %	Max %	Max %	Max %	%	%	%	Max %	Max %	%	%	W. Nr.	JIS	BS	AFNOR	UNI
300	301	0.12	2.00	0.045	0.030	1.00	16.0 - 18.0	6.0 - 8.0	-	-	0.10	-	-	1.4310	-	-	-	-
	302	0.12	2.00	0.045	0.030	1.00	17.0 - 19.0	8.0 - 10.0	-	-	0.10	-	-	1.4310	SUS302	302S17	Z 12CN 17 - 07	X 12CrNi 1707
	302HQ	0.03	2.00	0.045	0.030	1.00	17.0 - 19.0	9.0 - 11.0	3.0 - 4.0	-	-	-	-	1.4567	-	394S17	Z 2CN4 18 - 10	-
	X M7	0.03	2.00	0.045	0.030	1.00	17.0 - 19.0	8.0 - 10.0	3.0 - 4.0	0.10	-	-	-	-	-	-	-	-
	303	0.08	2.00	0.045	0.15 - 0.35	1.00	17.0 - 19.0	8.0 - 10.0	-	-	-	-	-	1.4305	SUS303	303S31	Z 10CNF 18 - 09	X 10CrNiS 1809
	303Cu	0.08	2.50	0.045	0.15 - 0.35	1.00	17.0 - 19.0	8.0 - 10.0	1.4 - 3.0	-	0.10	-	-	1.4570	-	-	-	-
	304	0.08	2.00	0.045	0.030	1.00	18.0 - 20.0	8.0 - 10.0	-	-	-	0-	-	1.4301	SUS304	304S15	Z 6CN 18 - 09	X 5CrNi 1810
	304HC	0.08	2.00	0.045	0.030	1.00	18.0 - 20.0	8.0 - 10.0	2.0 - 3.0	-	-	-	-	-	-	-	-	-
	304L (10%)	0.03	2.00	0.045	0.030	1.00	18.0 - 20.0	10.0 - 12.0	-	-	-	-	-	1.4306	SUS304L	304S11	Z 2CN 18 - 10	X 2CrNi 1811
	304L	0.03	2.00	0.045	0.030	1.00	17.5 - 19.5	8.0 - 10.5	-	-	-	-	-	1.4307	SUS304L	304S11	Z 2CN 18 - 10	X 2 CrNi 1811
	305	0.06	2.00	0.045	0.030	1.00	17.0 - 19.0	11.0 - 13.0	-	-	-	-	-	1.4303	-	-	-	-
	AISI 309	0.02	2.00	0.045	0.015	1.50 - 2.50	19.0 - 21.0	11.0-13.0	-	-	0.11	-	-	1.4828	-	-	-	X 15 CrNiSi 2012
	310S	0.08	2.00	0.045	0.030	1.50	24.0 - 26.0	19.0 - 22.0	-	-	0.14 - 0.20	-	Ce 0.030-0.080	1.4845	-	-	-	-
	253MA	0.05 - 0.10	0.80	0.040	0.030	1.10 - 2.00	20.0 - 22.0	10.0 - 12.0	-	-	-	-	-	1.4835	-	-	-	-
	254SMo	0.02	1.00	0.03	0.01	0.70	19.5 - 20.5	17.5 - 18.5	0.5 - 1.0	6.00 - 7.00	0.18 - 0.25	-	-	1.4547	-	-	-	-
	314	0.25	2.00	0.045	0.030	1.50 - 3.00	23.0 - 26.0	19.0 - 22.0	-	-	-	-	-	1.4841	-	-	-	-
	316	0.08	2.00	0.040	0.030	1.00	16.0 - 18.0	10.0 - 14.0	-	2.00 - 3.00	-	-	-	1.4401	SUS316	316S31	Z 6CND 17 - 11	X 8CrNiMo 1713
	316 (2.5Mo)	0.05	2.00	0.045	0.030	1.00	16.5 - 18.5	10.5 - 13.0	-	2.50 - 3.00	0.11	-	-	1.4436	-	-	-	-
	316L	0.03	2.00	0.045	0.030	1.00	16.0 - 18.0	10.0 - 14.0	-	2.00 - 3.00	-	-	-	1.4404	SUS316L	316S11	Z 2CND 17 - 12	X 2CrNiMo 1712
	316LVM / 316LRM	0.03	1.00 - 2.00	0.025	0.010	0.75	17.4 - 19.0	13.0 - 15.0	0.50	2.50 - 3.00	0.10	-	3.30Mo+Cr>26.0	1.4441	-	-	-	-
	316Ti	0.08	2.00	0.045	0.030	1.00	16.0 - 18.0	10.0 - 12.0	-	2.00 - 3.00	-	5X%C up to 0.08	-	1.4571	-	320S31-320S17	Z 6CNDT 17 - 12	X 6CrNiMoTi 1712
	630 (17-4PH)	0.07	1.00	0.040	0.030	1.00	15.0 - 17.5	3.0 - 5.0	3.0 - 5.0	-	-	-	Nb + Ta 0.15 - 0.45	-	-	-	-	-
	631 (17-7PH)	0.09	1.00	0.040	0.030	1.00	16.0 - 18.0	6.50 - 7.80	-	-	-	-	Al - 0.75 - 1.50	1.4568	SUS631	-	-	-
	ER317L	0.03	1.00 - 2.50	0.030	0.030	0.30 - 0.65	18.0 - 20.5	11.0 - 14.0	0.75	2.00 - 3.00	-	-	Nb=8XC Min.-1.00%Max	1.4576	-	-	-	-
	321	0.08	2.00	0.045	0.030	1.00	17.0 - 19.0	9.0 - 13.0	-	-	-	5X%C Minimum	-	1.4541	SUS321	321S31	Z 6CNT 18 - 10	X 6CrNiTi 1811
	321H	0.04 - 0.08	2.00	0.045	0.030	1.00	17.0 - 19.0	9.0 - 13.0	-	-	-	5X%C Minimum	-	1.4541	SUS321	321S31	Z 6 CNT 18 - 10	X 6CrNiTi 1811
	330Nb	0.03	1.00	0.035	0.015	1.00 - 3.00	19.0 - 22.0	34.5 - 37.0	-	-	400 ppm	-	Nb : 0.80 - 1.00	-	-	-	-	-
	347H	0.04 - 0.08	2.00	0.045	0.030	1.00	17.0 - 19.0	9.0 - 13.0	-	-	-	-	Nb>=10X%C	1.4550	-	-	-	-
	ER347	0.08	2.50	0.030	0.030	0.30 - 0.65	19.0 - 21.5	9.0 - 11.0	0.75	-	-	-	Nb=10XC Min.-1.00%Max.	1.4551	-	-	-	-
	ER307Si	0.12	6.00 - 7.50	0.030	0.020	0.65 - 0.95	17.2 - 19.8	8.0 - 9.4	0.30	0.30	-	-	-	1.4370	-	-	-	-
	ER308	0.04 - 0.08	2.00	0.020	0.020	0.30 - 0.65	19.0 - 21.0	9.5 - 11.0	-	-	-	-	-	1.4316	-	-	-	-
	ER308L	0.03	1.00 - 2.50	0.030	0.030	0.30 - 0.65	19.5 - 22.0	9.0 - 11.0	-	-	-	-	-	1.4316	-	308S92	Z 2CNS 20 - 10	-
	ER308Lsi	0.03	1.00 - 2.50	0.030	0.030	0.65 - 1.00	19.5 - 22.0	9.0 - 11.0	-	-	-	-	-	1.4316	-	-	-	-
	ER308L (Low % Si)	0.02	1.00 - 2.50	0.020	0.010	0.15	19.5 - 22.0	9.5 - 11.0	-	-	-	-	-	-	-	-	-	-
	ER309	0.12	1.00 - 2.50	0.030	0.030	0.30 - 0.65	23.0 - 25.0	12.0 - 14.0	-	-	-	-	-	1.4332	-	309S94	-	-
	ER309L	0.03	1.00 - 2.50	0.030	0.030	0.30 - 0.65	23.0 - 25.0	12.0 - 14.0	-	-	-	-	-	1.4332	-	309S94	-	-
	ER309Lsi	0.03	1.00 - 2.50	0.030	0.030	0.65 - 1.00	23.0 - 25.0	12.0 - 14.0	-	-	-	-	-	1.4332	-	-	-	-
	ER310	0.08 - 0.15	1.50 - 2.00	0.030	0.025	0.30 - 0.65	25.0 - 28.0	20.0 - 22.0	-	-	-	-	-	1.4842	-	310S94	Z 12CN 25 - 20	-
	ER312	0.15	2.00	0.025	0.025	0.30 - 0.65	29.0 - 32.0	8.0 - 10.0	-	-	-	-	-	1.4337	-	312S94	-	-
	ER316L	0.03	1.00 - 2.50	0.030	0.030	0.30 - 0.65	18.0 - 20.0	11.0 - 14.0	-	2.20 - 2.75	-	-	-	1.4430	-	316S92	Z 2CND 19 - 13	-
	ER316Lsi	0.03	1.00 - 2.50	0.030	0.030	0.65 - 1.00	18.0 - 20.0	11.0 - 14.0	-	2.00 - 3.00	-	-	-	1.4430	-	-	-	-
	ER316L (Low % Si)	0.02	1.00 - 2.50	0.020	0.010	0.15	18.0 - 20.0	11.0 - 14.0	-	2.50 - 3.00	-	-	-	-	-	-	-	-
	ER630	0.05	0.25 - 0.75	0.030	0.030	0.75	16.0 - 16.75	4.5 - 5.0	3.25 - 4.00	0.75	-	-	Nb+Ta=0.15-0.30	-	-	-	-	-



Series	Type	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	N	Ti	Others	EQUIVALENT INTERNATIONAL STANDARDS					
	Grade	Max %	Max %	Max %	Max %	Max %	%	%	%	Max %	Max %	%	%	W. Nr.	JIS	BS	AFNOR	UNI	
400	409	0.08	1.00	0.045	0.030	1.00	10.50 - 12.50	-	-	-	-	6X %C	-	1.4512	-	-	-	-	
	409Cb	0.06	1.00	0.045	0.040	1.00	10.50 - 11.75	0.50 max.	-	-	-	-	Cb 10Xc Min.-0.75 Max.	-	-	-	-	-	
	410	0.15	1.00	0.040	0.030	1.00	11.5 - 13.5	-	-	-	-	-	-	1.4006	-	-	-	-	
	410NiMo	0.060	0.60	0.030	0.030	0.50	11.0 - 12.5	4.00 - 5.00	0.75 max.	0.40 - 0.70	-	-	-	1.4351	-	-	-	-	
	416	0.15	1.00	0.040	0.15 - 0.30	1.00	12.00 - 14.00	-	-	-	-	-	-	1.4005	-	-	-	-	
	420A	0.15 - 0.25	1.00	0.040	0.030	1.00	12.0 - 14.0	-	-	-	-	-	-	1.4021	-	-	-	-	
	420B	0.26 - 0.35	1.00	0.030	0.015	1.00	12.0 - 14.0	-	-	-	-	-	-	-	-	-	-	-	
	420C	0.43 - 0.50	1.00	0.040	0.030	1.00	12.0 - 14.0	-	-	-	-	-	-	1.4034	-	-	-	-	
	420F	0.15 Min.	1.00	0.060	0.15 Min.	1.00	12.0 - 14.0	-	-	0.60	-	-	-	1.4028	-	-	-	-	
	430FR	0.070	0.80	0.30	0.25 - 0.40	1.00 - 1.50	17.25 - 18.25	0.60 max.	-	0.50	-	-	-	1.4105	-	-	-	-	
	420 Mo	0.33 - 0.45	1.50	0.040	0.015	1.00	15.5 - 175.5	1.00 max.	-	0.80 - 1.30	-	-	-	1.4122	-	-	-	-	
	ER420	0.30 - 0.37	1.00	0.030	0.015	1.00	12.0 - 14.0	-	-	-	-	-	-	1.4028	-	-	-	-	
	430	0.10	1.00	0.040	0.030	0.75	16.0 - 18.0	0.60	-	-	-	-	-	1.4016	SUS430	430S17	Z 8C17	X 8Cr17	
	430L	0.030	1.00	0.040	0.030	1.00	16.0 - 18.0	-	-	-	-	-	-	1.4016	-	-	-	-	
	430LNb	0.020	0.80	0.030	0.020	0.50	17.8 - 18.8	0.30	0.30	0.30	-	-	-	Nb 0.05 +7 (C+N) -0.50	1.4016	-	-	-	-
	430Cu	0.12	0.30 - 0.50	0.040	0.010	0.30 - 0.50	16.0 - 18.0	0.50 max.	0.85 - 1.00	-	-	-	-	-	-	-	-	-	-
	430F	0.12	1.25	0.060	0.150	1.00	16.0 - 18.0	-	-	-	-	-	-	-	-	-	-	-	-
	430F DIN	0.12	1.25	0.060	0.150	1.00	16.0 - 18.0	-	-	0.20 - 0.60	-	-	-	-	1.4104	-	-	-	-
	430Nb	0.08	1.00	0.045	0.030	1.00	16.0 - 18.0	-	-	-	-	-	-	Nb 12 X %C	1.4511	-	-	-	-
	431	0.12 - 0.22	1.50	0.040	0.015	1.00	15.0 - 17.0	1.50 - 2.50	-	-	-	-	-	-	1.4057	-	-	-	-
	434	0.12	1.00	0.040	0.030	1.00	16.0 - 18.0	0.50 max.	0.75 max.	0.75 - 1.25	-	-	-	-	1.4113	-	-	-	-
	439Ti	0.05	1.00	0.040	0.015	1.00	16.0 - 18.0	-	-	-	-	-	0.15 - 0.80	-	1.4510	-	-	-	-
	440C	0.95 - 1.20	1.00	0.040	0.030	1.00	16.0 - 18.0	0.60	-	0.75	-	-	-	-	1.4125	-	-	-	-
	441	0.03	1.00	0.040	0.015	1.00	17.5 - 18.5	-	-	-	-	-	0.10 - 0.60	Nb 0.35 - 1.00	1.4509	-	-	-	-
	446	0.20	1.50	0.040	0.030	1.00	23.0 - 27.0	-	-	-	-	0.25	-	-	1.4762	-	-	-	-
Duplex Steel	2101	0.040	4.00 - 6.00	0.040	0.030	1.00	21.00 - 22.00	1.35 - 1.70	0.10 - 0.80	0.10 - 0.80	0.20 - 0.25	-	-	1.4162	-	-	-	-	
	2205	0.030	2.00	0.030	0.020	1.00	21.00 - 23.00	4.50 - 6.50	0.10 - 0.60	2.50 - 3.50	0.10 - 0.22	-	-	1.4462	SUS32953L	318S13	-	-	
	2209	0.030	0.50 - 2.00	0.030	0.030	0.90	21.50 - 23.50	7.50 - 9.50	0.75	2.50 - 3.50	0.08 - 0.20	-	-	-	-	-	-	-	
	2304	0.030	2.00	0.030	0.020	1.00	22.0 - 24.0	3.50 - 5.50	0.10 - 0.60	0.10 - 0.60	0.05 - 0.22	-	-	1.4362	-	-	-	-	
	2507	0.030	1.20	0.035	0.020	0.80	24.0 - 26.0	6.00 - 8.00	0.50 max.	3.00 - 5.00	0.24 - 0.32	-	-	-	-	-	-	-	
	2553	0.040	1.50	0.040	0.030	1.00	24.0 - 27.0	4.50 - 6.50	1.50 - 2.50	2.90 - 3.90	0.10 - 0.25	-	-	-	-	-	-	-	
	2594	0.030	2.50	0.030	0.020	1.00	24.0 - 27.0	8.0 - 10.50	1.50	2.50 - 4.50	0.20 - 0.30	-	W - 1.0	-	-	-	-	-	
Other Grades	Type	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	N	Ti	Others	Iron	Co	AL	Tungsten	Vanadium	Niobium
	Grade	Max %	Max %	Max %	Max %	Max %	%	%	%	Max %	Max %	%	%	%	Max.	%	%	%	+ Tantalum %
	Alloy 82 (ERNiCr-3)	0.05	-	-	-	-	20.0	67.0 min.	-	-	-	-	-	3.00 max.	-	-	-	-	2.50
	904L	0.025	1.00 - 2.50	0.020	0.030	0.50	19.5 - 21.5	24.0 - 26.0	1.20 - 2.00	4.20 - 5.20	-	-	-	-	-	-	-	-	-
	X 750	0.08	0.30	-	0.010	0.50	14.0 - 17.0	Ni+Co 70 min.	0.50	-	-	2.25 - 2.75	-	5.00 - 9.00	-	0.40 - 1.00	-	-	0.70 - 1.20
	Nickel 200	0.15	0.35	-	0.010	0.35	-	99.0 min.	0.25	-	-	-	-	0.40 max.	-	-	-	-	-
	Alloy 600	0.15	1.00	-	0.015	0.50	14.0 - 17.0	72.0 min.	0.50	-	-	0.50	-	6.0 - 10.0	1.00	0.35	-	-	1.00
	Alloy 601	0.10	1.00	0.015	0.015	0.50	21.0 - 25.0	58.0 - 63.0	1.0 max.	-	-	-	-	-	-	1.00 - 1.70	-	-	-
	Alloy 625	0.10	0.50	0.015	0.015	0.50	20.0 - 23.0	58.0 min.	-	8.0 - 10.0	-	0.40 max.	-	5.00 max.	1.00	0.40 max.	-	-	3.15 - 4.15
	C-276	0.01	1.00	0.040	0.030	0.08	14.5 - 16.5	Bal.	-	15.0 - 17.0	-	-	-	4.0 - 7.0	2.50	-	3.00 - 4.50	0.35 max.	-
	Alloy 20	0.07	2.00	0.045	0.035	1.00	19.0 - 21.0	32.0 - 38.0	3.00 - 4.00	2.00 - 3.00	-	-	-	Bal.	-	-	-	-	8 XC - 1.00
	Alloy 825	0.05	1.00	-	0.030	0.50	19.5 - 23.5	38.0 - 46.0	1.50 - 3.00	2.50 - 3.50	-	0.60 - 1.20	-	22.0 min.	-	0.20 max.	-	-	-
	Alloy 400	0.30	2.00	-	0.024	0.50	-	63.0 min.	28.0 - 34.0	-	-	-	-	2.50 max.	-	-	-	-	-
	A 286	0.080	2.00	-	0.030	1.00	13.5 - 16.0	24.0 - 27.0	-	1.00 - 1.50	-	1.90 - 2.35	B 0.001 - 0.010	-	-	0.35 max.	-	0.10 - 0.50	-
	Alloy 61	0.15	1.00	0.030	0.015	0.75	-	Ni+Co 93.0 Min.	0.25 max.	-	-	2.0 - 3.5	-	1.00 max.	-	1.50 max.	-	-	4.75 - 5.50
Alloy 718	0.080	0.35	0.015	0.015	0.35	17.0 - 21.0	50.0 - 55.0	0.30 max.	2.80 - 3.30	-	0.65 - 1.15	-	-	-	0.20 - 0.80	-	-	-	
Alloy 22	0.015	0.50	0.020	0.020	0.080	20.0 - 22.5	50.0 - 63.0	-	12.50 - 14.50	-	-	-	2.0 - 6.0	2.50	-	2.50 - 3.50	0.35 max.	-	

* Alloy 418, Alloy 22, Nickel 61 (ERNi-I) & Cusn7 is available on request.

We at Raajratna are committed to satisfy the needs and expectation of the customers by manufacturing and supplying stainless steel wires, heat resistance wires, welding wires, profile wires, reinforcement bars and bright bars of stated quality, timely delivery and reliable services at all times.

This is achieved by Encouraging participation of employees.

Supplying reliable product assured by complying requirements and continuously improving the effectiveness of quality management system.



Approvals



The company has modern production facilities manned by experienced and committed personnel to produce wires and bright bars conforming to various international standards.

The quality is built into the product as a result of inspection and testing at various stages of production starting from raw material stage to finish product. We have also installed spectrometer for chemical analysis of incoming raw material.



Raajratna exports it's 70% of production to more than 60 countries across the globe



Enquiries & Orders

Please provide following information while forwarding your enquiries and orders:

- Size
- Grade (as per international standards) with any change from standard composition
- Finish condition, tensile strength and surface finish
- End application
- Quantity for each size and each grade
- Delivery Schedule
- Packaging requirements – coil, spool etc. with specific dimensions
- Port of shipment / Destination

For more information please visit our website : www.raajratna.com



Our Testing Facilities Include

- Eddy Current Test
 - Metallurgical Tests
 - Mechanical Tests
 - Inter-granular Corrosion Test
 - Charpy Impact Test
- Surface Roughness Tester
 - Salt Spray Test
 - Spectro & XRF Analyser
 - Radioactive Test
 - Feedability Test for MIG Wire
- Profile Projector
 - CMM
 - Magnetic Permeability
 - and many more...
- Upgradation of technology and continual research & developments helped us to meet critical standards of end users as per their requirements. Such infrastructure automatically leads to improved processes, world-class practices and recognised quality benchmarks enabling the company to achieve excellence in the product.





Plant - Indonesia



Plant - India



Raajratna[®]

Metal Industries Limited

Corporate Office

909, Sakar-III, Near Income Tax,
Ahmedabad-380 014, Gujarat (INDIA)
Phone : +91-79-2754 3681 / 82 / 83 / 84
Fax : +91-79-2754 3085, 2656 8085
E-mail : sales@raajratna.com
Website : www.raajratna.com

Plant - India

146 Bileshwarpura, Ahmedabad-Mehsana Highway,
Taluka : Kalol, Dist. : Gandhinagar, Pin-382 729 Guj. (INDIA)
Phone : +91-2764-233664, 233665
Fax : +91-2764-233663
E-mail : work@raajratna.com

Mumbai Office

126, Mittal Court, A-Wing, Nariman Point,
Mumbai - 400 021.. Maharashtra (India)
Phone : +91-22-2282 9342 / 44 / 45 / 46
Fax : +91-22-2282 9343
E-mail : mumbai@raajratna.com

Delhi Office

10/61-D, Kirtinagar Industrial Area,
New Delhi-110015 (INDIA)
Phone : +91-11-45528357
Mobile : +91-98109 28357
E-mail : ncr@raajratna.com

Subsidiary Companies

Plant - (Batam) Indonesia

PT. Raajratna Wire
Tunas Industrial Estate
Block 8D & 8E Batam - INDONESIA
Telp : +62-778 471 095
Fax : +62-778 471 096
E-mail : sales@ptraajratna.com

USA Office

RAAJRATNA STAINLESS WIRE (USA), INC.
1448 Yorkshire Drive I Streamwood I IL 60107
Phone : +1-847 923 8000 Fax : +1-847 923 8088
Mobile : +1-847 219 7615
E-mail : baiju@raajratna.com

Italy Office

ERRE INOX S.R.L.
Via Alla Cascata 15, 23801 CALOLZIOCORTE-LECCO-ITALY
Phone : +39-0341 682977
Fax : +39-035 5099063
E-mail : info@erreinox.com Web : www.erreinox.com

Warehouses

- | | | |
|----------------|----------------|--------------------|
| ■ Italy | ■ Netherlands | ■ Spain |
| ■ UK | ■ Chicago (IL) | ■ Hartford (CT) |
| ■ Tijuana (MX) | ■ Houston (TX) | ■ Los Angeles (CA) |