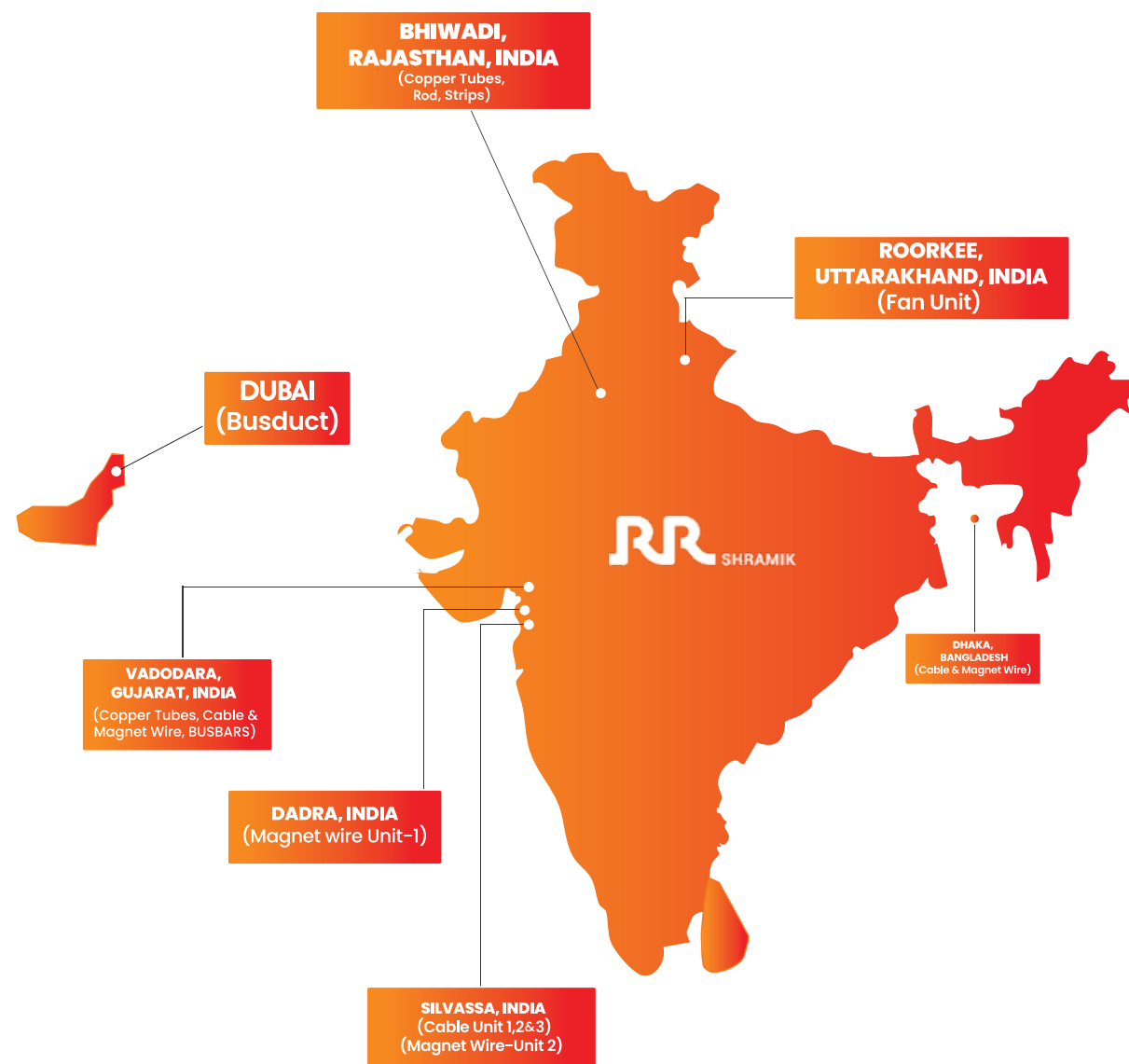




Ram Ratna House, Utopia City, P. B. Marg, Worli, Mumbai - 400 013
Alembic Business Park (W), Ground Floor, Bhailal Amin Marg, Gorwa, Vadodara - 390 003

RAM RATNA WIRES LTD. (Copper Tube Division)

VADODARA PLANT : Block No: 56P, Survey No. 65/66, Garadiya, Jarod - Samlaya Road, Savli, Vadodara - 391520, Gujarat, India

BHIWADI PLANT : Plot No. SP1-200, RIICO-II, EMC Zone, Industrial Area, Salarpur, Bhiwadi, Dist-Alwar - 301019, Rajasthan, India

W : www.rrshramik.com • E : sales.coppertube@rrglobal.com • T : 7046 051 517



THE WORLD CLASS COPPER TUBE
MANUFACTURER IN INDIA



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RR SHRAMIK

Thank you for your interest in Ram Ratna Wires Limited and our products.

Since our establishment in 1986, our primary commitment has been to deliver excellence in solution to electrical & electronic industry. With decades of experience and a continuous focus on quality and innovation, the Ram Ratna Group has grown into a trusted name in the industry, known for its strong manufacturing capabilities and customer-focused approach.

Today, Ram Ratna Wires Limited manufactures high-quality copper tubes at its advanced facilities located in Vadodara, Gujarat and Bhilwadi, Rajasthan, with a combined production capacity of 36,000 MTPA. Equipped with modern manufacturing infrastructure and stringent quality control systems, we are capable of producing precision copper tubes for a wide range of applications including HVAC, refrigeration, air-conditioning, and various industrial sectors.

Our products are manufactured in accordance with internationally recognized standards such as ASTM, EN, AS/NZS, JIS, and BS, along with Indian standards including IS 2501 and IS 10773, ensuring consistent quality and reliability. With a strong global presence, we proudly serve customers in over 90 countries worldwide.

Backed by strong engineering expertise, advanced manufacturing technology, and global quality standards, Ram Ratna Wires Limited continues to deliver reliable copper solutions while strengthening long-term partnerships with customers across the globe.

We look forward to continued collaboration with our valued customers and to welcoming new partners, supported by our ongoing commitment to quality, innovation, and service excellence.

Founder & Chairman
Mr. Tribhuvan Kabra (Bhaiji)

AIMING TO BE

THE CATALYST



Ram Ratna Wires Limited

a part of RR Global, is one of the leading conglomerates in the electrical and copper industry. Observing the rapidly changing industrial environment and technological advancements in copper tube manufacturing in neighbouring countries such as China, Malaysia, and Vietnam, the company recognises the significant impact these developments have on the domestic industry.

With the aim of acting as a catalyst for positive change, Ram Ratna Wires Limited leverages the expertise of highly skilled professionals who possess remarkable experience in the copper sector. The company's manufacturing operations are carried out in a state-of-the-art, fully automatic facility with an impressive production capacity of 36,000 MT per annum.

Single Source for Consistent Quality and Reliable Supply at RRWL, we implement Cast and Roll, the most advanced and state-of-the-art technology, to produce Level Wound Copper Coils. To meet the growing demand for such products, we also manufacture Pancake Coils, Straight Pipes, PVC Coated Tubes, and Inner Grooved Tube. All our products are made from high-quality Electrolytic Copper Cathode with 99.99% purity, ensuring superior performance and reliability.

We would like to introduce ourselves as RR Shramik (Ram Ratna Wires Limited), a part of the USD 1.6 billion RR Global conglomerate, with a presence in over 90 countries and renowned group brands such as RR Kabel, RR Shramik, RR Parkon, and many more.

We specialise in the manufacture of Copper Seamless Tubes – Grade DHP (De-oxidised High Residual Phosphorus Copper) at two advanced production facilities:

Vadodara, Gujarat
with an installed capacity of
12,000 MTPA

Bhiwadi, Rajasthan
with an installed capacity of
24,000 MTPA

Both plants are equipped with state-of-the-art Cast and Roll Technology and incorporate advanced processes such as Online Eddy Current Testing and Annealing to ensure the highest quality standards.

Cast & Roll

Superior Technology, Smarter Development

The Cast & Roll (C&R) technology consists of two main processes: melting and casting, followed by tube rolling. After casting the exterior surface of the shell, it is machined to remove scales and the effects of oxidation, with no lubricants used during the rolling process.

The nitrogen gas environment employed during the cold working process protects the copper material even at high temperatures, ensuring that the tubes remain bright both inside and out, which improves drawability and enhances the outcome of the C&R process.

We use state-of-the-art equipment such as the Planetary Rolling Machine, Cascade Drawing Machine, and Spin Block Drawers, all of which are fully automatic, eliminating any possibility of human error.

Product Features:

- Electrolytic Copper Cathode used as raw material.
- Soft-annealed, clean from inside and out. (Carbon Free)
- Online Eddy Current tested.
- Conforms to IS 10773, IS 2501, ASTM B68, B75, B88, B280, B819, B306, B837, BS EN 12735, BS EN 1057, BS EN 13348, JIS H3300, AS/NZS 1571 & AS1432
- CFC-Free – R134A, R600 & R410A and RoHS compliant.
- Controlled contamination levels.

Our product range includes:

Level Wound Coil – Manufactured as per IS 10773 (HVAC) and IS 2501 (General Engineering Purpose), Compliant as per ASTM B68, ASTM B280, AS/NZS 1571, AS1432, EN12735 and JIS H3300 standards.

Jumbo Coils – Seamless coils weighing 300–900 kg, packed in ETS & ETW, compliant with ASTM B280, IS 10773, JIS H3300, AS/NZS 1571, AS 1432, and EN 12735 standards.

Pancake Coils – Available in 15m/ 15.24m / 30.48m/ 50ft / 100ft in length, Manufactured as per IS 10773, JIS H3300, AS/NZS 1571, AS1432, EN12735, ASTM B280, ASTM B68.

Straight Copper Pipes – Precision-engineered for various applications Manufactured as per IS 10773 (HVAC) and IS 2501 (General Engineering Purpose), JIS H3300, AS/NZS 1571, AS1432, EN12735, ASTM B280, ASTM B68.

VRV/VRF Systems – Offering both PCC (Pancake Coils) and Straight Tubes.

PVC-Coated Copper Tubes – For enhanced corrosion resistance, Manufactured as per IS 10773.

Capillary Tubes – Manufactured as per ASTM B360 standards.

Medical Grade Copper Tubes – Specially designed for hospitals and COVID-19 centres.

Inner Grooved Tubes – Compliant with GB/T 20928, and JIS H3300 standards and Manufactured as per IS 10773.

Finned Tube - Internal and External Area Enhancement - As per ASTM B359 and IS 10773.

1986

- Established winding wire manufacturing facility
- Currently, Ram Ratna Wires Ltd is the 2nd largest winding wire manufacturing company in India

1989

- Established copper products manufacturing facility
- India's first dust free plant

1991

- Established Ram Ratna International for exports
- Approved as a certified export house by the Govt. of India in the very first year after its establishment

1999

- Established wires & cables manufacturing unit at Silvassa
- Established RR Kabel, the only company to have 27 accreditations at a single factory

2003

- Introduced automated multilevel car parking systems
- India's first company to build automated multilevel car parking system at a single location

2010

- Established wires & cables manufacturing unit at Vadodara
- Introduced a complete range of wiring devices (Switches) which includes India's first DIY switches

2011

- Established first overseas factory in Bangladesh to manufacture super enameled wires and LV Cables
- Test marketing of Fans initiated

2013

- Established RR Electrical Middle East FZC for distribution in Middle East, GCC & Africa

2014/15

- Introduced complete range of Domestic and Industrial Fans
- Introduced a high-end range of Appliances for various needs

2016

- Group branding established-RR Global
- Introduced a complete range of LED and conventional lighting for indoor and outdoor purposes
- New plant established for fans in Roorkee for RR Kabel and RR Shramik

2017/20

- 60% stake in a copper tube manufacturing company, Global Copper Limited
- 12000 MTPA Capacity
- Launch of Electric Bike by July 2020, Bgauss

2024/25

- Set-up for Copper tubes at Bhiwadi, Rajasthan
- 24000 MTPA Capacity

GROUP JOURNEY

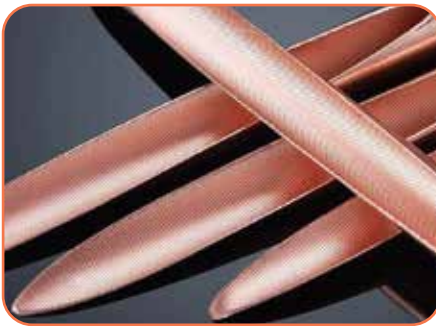


Product List



Level Wound Coils (LWC)

- Temper : Soft Annealed (O60, O), Light Annealed (O50, OL), Light Drawn (H55)
- Size : 4.76mm - 19.05mm (3/16" ~ 3/4" OD)
- Packing : ETS, ETW, Jumbo Coil
- Coil weight : 90 kg - 200 kg (ETS, ETW)
300 kg - 900 kg (Jumbo Coil)



Inner Grooved Tube (IGT)

- Temper : Light Annealed (O50,OL), Soft Annealed (O60, O)
- Size : 5mm - 12.7mm (5mm ~ 1/2"OD)
- Packing : ETS, Jumbo Coil
- Coil weight : 90 - 500 kg



Pancake Coils (PCC)

- Temper : Soft Annealed (O60, O), Light Annealed (O50, OL)
- Size : 4.76mm - 22.22mm (3/16" ~ 7/8"OD)
- Length : Standard 15m / 15.24m / 50ft / 100ft
- Ink Marking Available
- Packing : Shrink Wrap Carton box Plastic wrap + label Outer Cap



Straight Tube (SP)

- Temper : Soft Annealed (O60, O), Half Hard/Light Drawn (H55), Hard Drawn (H58)
- Size : 4.76mm - 50.8mm (3/16" ~ 2" OD)
- Ink Marking Available
- Packing : Bundle, Wooden box, Outer cap



ACR/Medical Straight Tube (MGPS)

- Temper : R220 (Annealed) R250 (Half Hard) R290 (Hard)
- Size : 8 mm - 50.8 mm (8mm ~ 2" OD)
- Length : Standard 3 m / 6 m / 10ft / 20ft
- Casing & Ink marking available
- Packing : Bundle, Wooden box, Outer cap



PVC Coated Tubes (polyvinyl chloride)

- Temper : Soft Annealed (O60, O)
- Size: 9.52 mm (3/8" OD)
- Coil : Standard (15.24m / 30.48m) (50ft / 100ft)
- Ink Marking available
- Packing: Bundle, Wooden Box
- LDPE White Sleeve or PVC Blue, Yellow, Red, Black



Capillary Tubes

- Temper : Soft Annealed (O60, O), Hard (HD)
- Size : OD: 1.80 mm – 4.76 mm ID: 0.66 mm – 3.03 mm Thickness: 0.57 mm – 0.87 mm
- Shape : Coil Form, Straight Length with Beading
- Length (Straight Capillary) : 0.200 mtr – 6 mtr



Finned Copper Tube (FCT)

- Temper: Soft Annealed
- Size Range: 12.7 mm – 25.4 mm
- Number of Finns: 19 ~ 60 / Inch
- Types: Knurling / without Knurling
- Inner Grooves 70
- Height of Finns: 0.7 mm – 1.6 mm
- Length: 300 mm – 6000 mm



I-Kit Copper Tube with Insulation

- Size OD: 3/16" (4.76 mm) – 7/8" (22.22 mm)
- Length: 3 to 30 meter
- Insulation Material: PE, Rubber
- Insulation Category: Flame Retardant, High Temperature Resistant
- Inner Diameter – Insulation: 6 to 25 mm
- Insulation Wall Thickness: 8 to 20 mm
- End Configuration: With or Without Cap & Flaring
- Flaring: One End, as per requirement

TYPES OF COPPER TUBE IS GROUPED

By Chemical	DHP	High Phosphorus Deoxidized (P:0.015% ~ 0.040%)
	DLP	Low Phosphorus Deoxidized (P:0.004% ~ 0.015%)
By Temper	O	Soft Annealed
	OL	Light Annealed
	1/2H	Half Hard is referred to as 'R250, 1/2H/ Bendable, Light Drawn/Half Hard'
	H	Hard Drawn temper tube is often referred to as "Drawn" tube
By Use	Water Tube	Domestic water service and distribution
	ACR Tube	Air-conditioning and refrigeration field service
	Condenser Tube	Heat exchange & fin tube
	DWV Tube	Drain, Waste and sewage service
	GAS Tube	Natural gas & liquefied petroleum gas fuel distribution service
By Shape	Straight Pipes	Normal Length of SP is 3 Mtr, 6 Mtr, 10 Ft & 20 Ft
	Pancake Coil	15.24M
	Level Wound Coil (Plain/IGT)	90 - 200 Kg
	Jumbo Coil (Plain/IGT)	300 - 900 Kg

MECHANICAL PROPERTIES

MECHANICAL PROPERTIES

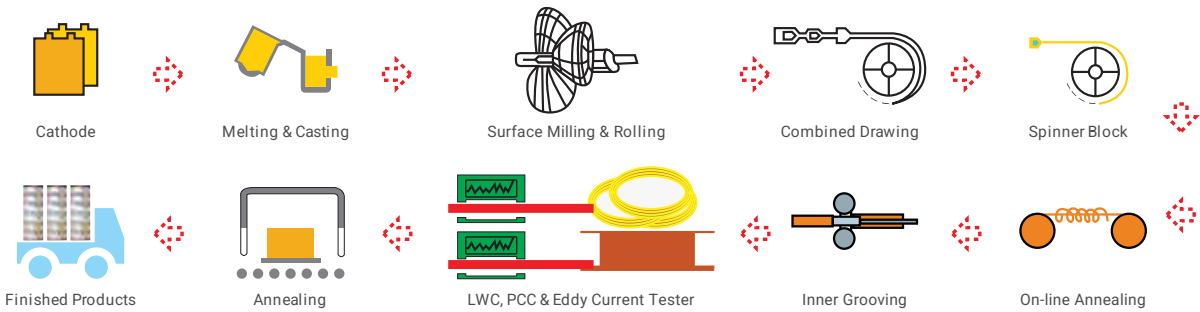
Standard	UNS No.	Copper Alloy	Temper		Tensile Strength (MPa)	Elongation %	Hardness	Grain Size (mm)
IS	C12200 C12000	CU-DHP CU-DLP	Soft Annealed (O)		>210	>40	<60 HV5	>0.040
			Light Annealed (OL)		>220	>40	<65 HV5	0.015 - 0.040
			Light Drawn (HB)		>245	>20	70 - 100 HV5	-
			Hard Drawn (HD)		>290	-	>100 HV5	
JIS	C1220 C1201	DHP DLP	O	Soft Annealed	>205	>40	<60 HR15T	0.025-0.060
			OL	Light Annealed		-	<65 HR15T	<0.040
			1/2H	Half Hard	>245-325		30 - 60 HR30T	-
					>315		>55 HR30T	
			H	Drawn	>275		Apply to below 25mm only	
					>255			
ASTM B88 ASTM B280	C12200	DHP	O60	Soft Annealed	>207	-	<50 HRF	>0.040
			O50	Light Annealed	>207		<55 HRF	>0.025
			H58	Drawn	>248		>30 HR30T	
AS1432 AS/NZS1571	C12200	DHP	Ann	Annealed	-	-	<70 HV	-
			BQ	Bendable temper			80-100 HV	
			HD	Hard Drawn			>100 HV	
EN1057 EN12735-1	C12200 CW024A	DHP	R220	Annealed	>220	>40	40-70 HV 5	-
			R250	Half Hard	>250	>20	75 - 100 HV 5	
			R290	Hard	>290	>3	>100 HV 5	

SIZE RANGE

Japanese, European, American, Australian and Indian Standard

OD	Available Wall Thickness			Phosphorus Alloy											
	SP LWC Max	SP LWC Min	IGT	DLP (C12000) : Low Phosphorus Alloy						DHP (C12200) : High Phosphorus Alloy					
				Packing Method											
				Bundle or Wooden Box			Bobbin or Without Bobbin						Carton + Pallet		
				Products											
				SP			LWC			IGT			PCC		
H	1/2H	O	H	OL	O	H	OL	O	H	OL	O				
4.00	1.00	0.27		X	X	X	Δ	Δ	Δ	X	X	X	X	X	X
4.75	1.00	0.27		X	X	X	Δ	Δ	Δ	X	X	X	X	X	X
5.00	1.00	0.27	0.20	X	X	X	•	•	•	•	•	•	X	•	•
6.35	1.20	0.27	0.20	•	•	•	•	•	•	•	•	•	X	•	•
7.00	1.20	0.27	0.22	•	•	•	•	•	•	•	•	•	X	•	•
7.94	1.20	0.27	0.25	•	•	•	•	•	•	•	•	•	X	•	•
9.52	1.20	0.27	0.28	•	•	•	•	•	•	•	•	•	X	•	•
12.70	2.00	0.37	-	•	•	•	•	•	•	X	X	X	X	•	•
15.88	1.20	0.40	-	•	•	•	•	•	•	X	X	X	X	•	•
19.05	1.25	0.50	-	•	•	•	•	•	•	X	X	X	X	•	•
22.22	1.50	0.55	-	•	•	•	X	X	X	X	X	X	X	•	•
25.40	1.50	0.60	-	•	•	•	X	X	X	X	X	X	X	X	X
28.58	1.50	1.00	-	•	•	•	X	X	X	X	X	X	X	X	X
31.75	1.50	1.50	-	•	•	•	X	X	X	X	X	X	X	X	X
34.92	2.00	1.50	-	•	•	•	X	X	X	X	X	X	X	X	X
38.10	2.00	1.50	-	•	•	•	X	X	X	X	X	X	X	X	X
44.45	2.50	1.50	-	•	•	•	X	X	X	X	X	X	X	X	X
50.80	2.50	2.00	-	•	•	•	X	X	X	X	X	X	X	X	X

Production Process Of Copper Tube



ASTM B88

Seamless Copper Water Tube

1. Size Table

Type	OD		Wall Thickness		Weight		Temper Quality	Product Type	Safe Working Pressure at service temperature		
	Inch		MM	Inch	MM	kg/m			lb/ft	65°C	149°F
	Nom	Act								kPa	psi
K	1/4	3/8	9.52	0.035	0.889	0.216	0.145	060, H58	LWC, PCC, SP	7,090	1,020
	3/8	1/2	12.70	0.049	1.245	0.400	0.269	060, H58	LWC, PCC, SP	7,480	1,080
	1/2	5/8	15.88	0.049	1.245	0.512	0.344	060, H58	LWC, PCC, SP	5,880	850
	5/8	3/4	19.05	0.049	1.245	0.622	0.418	060, H58	LWC, PCC, SP	4,850	700
	3/4	7/8	22.22	0.065	1.651	0.954	0.641	060, H58	PCC, SP	5,550	800
	1	1-1/8	28.58	0.065	1.651	1.248	0.839	060, H58	SP	4,260	610
	1-1/4	1-3/8	34.92	0.065	1.651	1.543	1.037	H58	SP	3,450	500
	1-1/2	1-5/8	41.28	0.072	1.829	2.026	1.361	H58	SP	3,230	460
L	1/4	3/8	9.52	0.030	0.762	0.188	0.126	060, H58	LWC, PCC, SP	6,010	570
	3/8	1/2	12.70	0.035	0.889	0.295	0.190	060, H58	LWC, PCC, SP	5,220	750
	1/2	5/8	15.88	0.040	1.016	0.424	0.285	060, H58	LWC, PCC, SP	4,740	680
	5/8	3/4	19.05	0.042	1.067	0.539	0.382	060, H58	LWC, PCC, SP	4,120	590
	3/4	7/8	22.22	0.045	1.143	0.677	0.455	060, H58	PCC, SP	3,770	540
	1	1-1/8	28.58	0.050	1.270	0.974	0.654	060, H58	SP	3,240	470
	1-1/4	1-3/8	34.92	0.055	1.397	1.315	0.889	H58	SP	2,900	420
	1-1/2	1-5/8	41.28	0.060	1.524	1.701	1.143	H58	SP	2,670	380
M	3/8	1/2	12.70	0.025	0.635	0.215	0.145	060, H58	LWC, PCC, SP	3,660	530
	1/2	5/8	15.88	0.028	0.711	0.303	0.204	060, H58	LWC, PCC, SP	3,260	470
	5/8	3/4	19.05	0.030	0.762	0.391	0.263	060, H58	LWC, PCC, SP	2,900	420
	3/4	7/8	22.22	0.032	0.813	0.489	0.329	060, H58	PCC, SP	2,650	380
	1	1-1/8	28.58	0.035	0.889	0.691	0.464	060, H58	SP	2,240	320
	1-1/4	1-3/8	34.92	0.042	1.067	1.015	0.682	H58	SP	2,200	310
	1-1/2	1-5/8	41.28	0.049	1.245	1.400	0.940	H58	SP	2,170	310

ASTM B88

Seamless Copper Water Tube

Pressure ratings for K, L, M DWV and refrigeration tube are calculated for annealed tube and for use when jointing is made using a heat source. Hard drawn tubes has higher pressure ratings which will only be maintained when non-heat source joining methods are used. This information is key when systems are designed.

2. Incising Mandatory

OD SIZE	WT TYPE	Ink Marking (Durable)	Note
Full Range	Type K	Trade Mark, Type K, Origin	Green Ink
	Type L	Trade Mark, Type L, Origin	Blue Ink
	Type M	Trade Mark, Type M, Origin	Red Ink

Warnock hersey logo or NSF61 logo and other information can be marked by mutual agreement, the standard and the license agreement

3. Finishing

Cleanliness - Unrequired by the Standard
End-Cap - End-Capped by a Buyer's Option

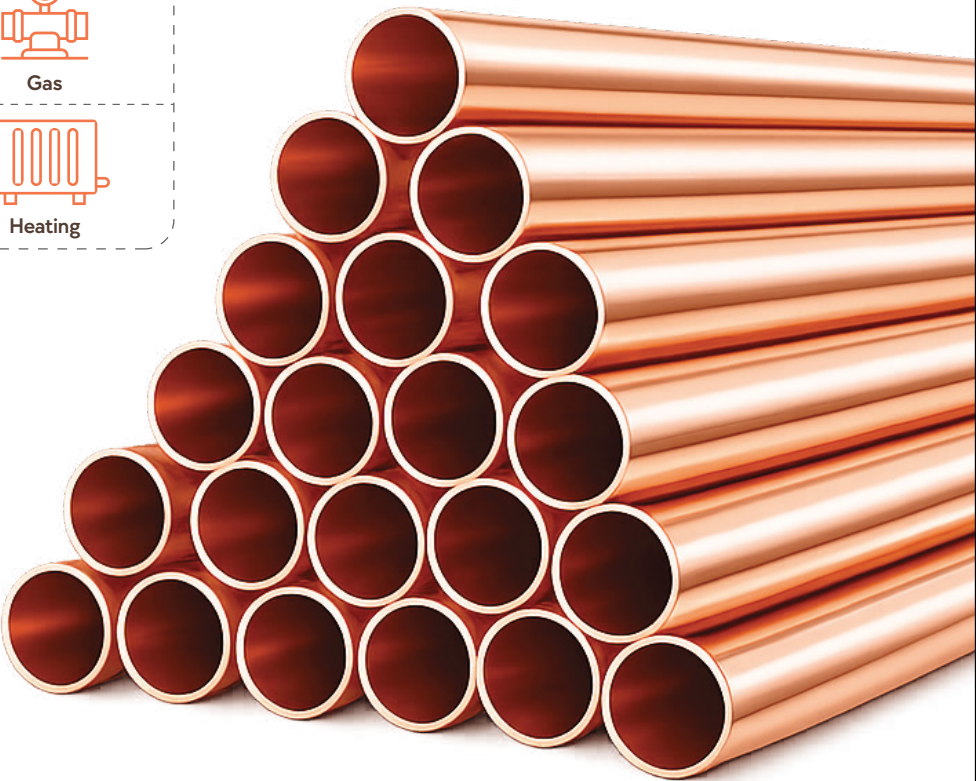
PRODUCT APPLICATION AREAS


Water


Gas


Sanitary


Heating



ASTM B280

Seamless Copper Tube for
Air Conditioning and Refrigeration Field Service

1. Size Table of B280 Straight Tube

Type	OD		Wall Thickness		Weight		Temper Quality	Safe Working Pressure at service temperature	
	Inch	MM	Inch	MM	kg/m	lb/ft		65°C	149°F
								kPa	psi
L	3/8	9.52	0.030	0.762	0.188	0.126	H58	6,010	870
	1/2	12.70	0.035	0.889	0.295	0.198	H58	5,220	750
	5/8	15.88	0.040	1.016	0.424	0.285	H58	4,740	680
	3/4	19.05	0.042	1.067	0.539	0.362	H58	4,120	590
	7/8	22.22	0.045	1.143	0.677	0.455	H58	3,770	540
	1-1/8	28.58	0.050	1.27	0.974	0.654	H58	3,240	470
	1-3/8	34.92	0.055	1.397	1.315	0.884	H58	2,900	420
	1-5/8	41.28	0.060	1.524	1.701	1.143	H58	2,670	380
K	3/8	9.52	0.035	0.889	0.216	0.145	H58	7,090	1,020
	1/2	12.70	0.049	1.245	0.400	0.269	H58	7,480	1,080
	5/8	15.88	0.049	1.245	0.512	0.344	H58	5,880	850
	3/4	19.05	0.49	1.245	0.622	0.418	H58	4,850	700
	7/8	22.22	0.065	1.651	0.954	0.641	H58	5,550	800
	1-1/8	28.58	0.065	1.651	1.248	0.839	H58	4,260	610
	1-3/8	34.92	0.065	1.651	1.543	1.037	H58	3,450	500
	1-5/8	41.28	0.72	1.829	2.026	1.361	H58	3,230	460

Pressure ratings for K, L, DWV and refrigeration tube are calculated for annealed tube and for use when jointing is made using a heat source. Hard drawn tubes has higher pressure ratings which will only be maintained when non-heat source joining methods are used. This information is key when systems are designed.

PRODUCT APPLICATION AREAS

Air Conditioning

Refrigeration Systems

Vrf / Vrv Systems

Chillers



2. Size Table of Pancake Coil

Type	OD		Wall Thickness		Weight		Temper Quality	Safe Working Pressure at service temperature	
	Inch	MM	Inch	MM	kg/m	lb/ft		65°C	149°F
								kPa	psi
Soft Coil B280 ACR/Type L Standard	1/4	6.35	0.030	0.762	0.120	0.080	O60	9,340	1,350
	5/16	7.94	0.032	0.813	0.163	0.109	O60	7,850	1,130
	3/8	9.52	0.032	0.813	0.199	0.134	O60	6,440	930
	1/2	12.70	0.032	0.813	0.271	0.182	O60	4,750	680
	5/8	15.88	0.035	0.889	0.374	0.251	O60	4,120	590
	3/4	19.05	0.035	0.889	0.453	0.305	O60	3,410	490
	7/8	22.22	0.045	1.143	0.677	0.455	O60	3,770	540
Soft Coil B280 Type K Heavy Coil	3/8	9.52	0.035	0.889	0.216	0.145	O60	7,090	1,020
	1/2	12.70	0.049	1.245	0.400	0.269	O60	7,480	1,080
	5/8	15.88	0.049	1.245	0.512	0.344	O60	5,880	850
	3/4	19.05	0.049	1.245	0.622	0.418	O60	4,850	700
	7/8	22.22	0.065	1.651	0.954	0.641	O60	5,550	800
Soft Coil B743 Economy	1/4	6.35	0.024	0.610	0.098	0.066	O60	7,320	1,060
	5/16	7.94	0.024	0.610	0.126	0.084	O60	5,760	830
	3/8	9.52	0.024	0.610	0.153	0.103	O60	4,750	680
	1/2	12.70	0.028	0.711	0.239	0.161	O60	4,120	590
	5/8	15.88	0.028	0.711	0.303	0.204	O60	3,260	470
	3/4	19.05	0.032	0.813	0.416	0.280	O60	3,110	450
	7/8	22.22	0.037	0.940	0.562	0.378	O60	3,080	440

3. Marking and Incising

Item	Product Type	Standard Marking		Note
		Ink Marking (Durable)	Incising (Permanent)	
B280 Standard	TUBE	ACR, Trademark, OD, Origin	Trademark, ACR	Blue Ink
B280 Type k Heavy	TUBE	ACR Type K, Trademark, OD, Origin	Trademark, ACR TYPE K	Green Ink
B280 Standard	COIL	Not Required by standard	Trademark, ACR	Black Ink
B280 Type K Heavy	COIL	Not Required by standard	Trademark, ACR TYPE K	Black Ink
B743 Economy	COIL	Not Required by standard	N/A	Black Ink

4. Finishing

Cleanliness - 0.038g / m2
End-Cap - Required by the Standard

ASTM B819

Seamless Copper Tube for Medical Gas Systems

1. Size Table

OD			OD Wall Thickness (Inch/mm)				Temper Quality	Product Type
Nominal	Actual		K - Type		L - Type			
Inch	Inch	MM	Inch	MM	kg/m	lb/ft		
1/4	3/8	9.52	0.035	0.889	0.030	0.762	H58	SP
3/8	1/2	12.70	0.049	1.245	0.035	0.889	H58	SP
1/2	5/8	15.88	0.049	1.245	0.040	01.016	H58	SP
5/8	3/4	19.05	0.049	1.245	0.042	1.067	H58	SP
3/4	7/8	22.22	0.065	1.651	0.045	1.143	H58	SP
1	1-1/8	28.58	0.065	1.651	0.050	1.270	H58	SP
1-1/4	1-3/8	34.92	0.065	1.651	0.055	1.397	H58	SP
1-1/2	1-5/8	41.28	0.072	1.829	0.060	1.524	H58	SP

2. Marking and Incising

OD Size	Temper	Standard Marking		Note
		Ink Marking (Durable)	Incising (Permanent)	
Full Range	H58	Trademark, Origin, MED	Trademark, TYPE K	Green Ink
		Trademark, Origin, MED	Trademark, TYPE L	Blue Ink

Seamless Copper Tube for Medical Gas Systems



3. Finishing

Cleanliness - 0.038g/m2
End-Cap - Required by the standard

PRODUCT APPLICATION AREAS


Hospital


Clinics


Medical College


Laboratory

ASTM B306

Copper Drainage Tube (DWV)

1. Size Table

OD			Wall Thickness (Inch/mm)		Temper Quality	Product Type
Inch		MM				
Nom	Act					
1-1/4	1-3/8	34.92	0.040	1.02	H58	SP
1-1/2	1-5/8	41.28	0.042	1.07	H58	SP

2. Marking and Incising

OD Size	Standard Marking		Note
	Ink Marking (Durable)	Incising (Permanent)	
Full Range	DWV, Trademark, Origin	DWV, Trademark	Yellow Ink

3. Finishing

Cleanliness - 0.038g/m2
End-Cap - Required by the standard

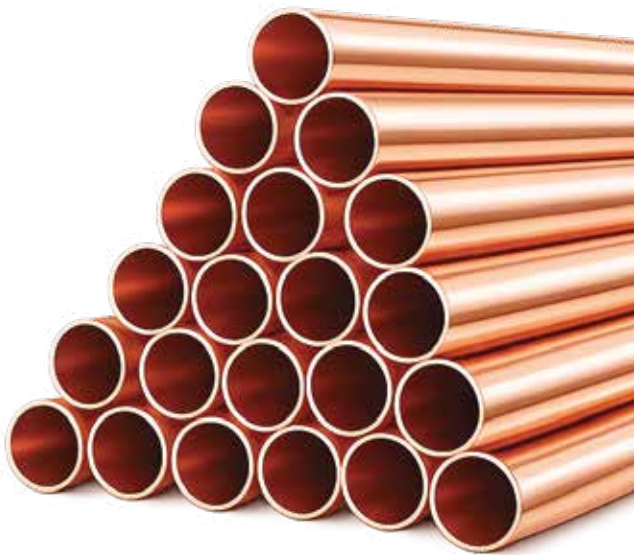
PRODUCT APPLICATION AREAS


Rainwater Drainage


Waste Water Disposal


Residential & Commercial Use


Sanitary Drainage



ASTM B837

Seamless Copper Tube for Natural Gas & Liquefied Petroleum (LP) Gas Fuel Distribution Systems

1. Type Gas

OD		OD Wall Thickness (Inch/mm)			Tolerance Inch	Product Type
Actual	MM	INCH	MM			
Inch						
3/8	0.375	9.52	0.030	0.762	0.0030	PCC/SP
1/2	0.500	12.70	0.035	0.889	0.0040	PCC/SP
5/8	0.625	15.88	0.040	1.016	0.0040	PCC/SP
3/4	0.750	19.05	0.042	1.067	0.0040	PCC/SP
7/8	0.875	22.23	0.045	1.143	0.0040	PCC/SP
1-1/8	1.125	28.58	0.050	1.270	0.0050	SP

2. Marking and Incising

OD Size	Standard Marking		Note
	Ink Marking (Durable)	Incising (Permanent)	
Full Range	GAS, Trademark, Origin	GAS, Trademark	Yellow Ink

3. Finishing

Cleanliness - Unrequired by the standard
End-Cap - Unrequired by the standard



BS EN 12735

Seamless, round copper tubes for air-conditioning and refrigeration

1. Size Table

OD			Nominal Wall Thickness (mm)					Temper Quality	Product Type	Maximum Working Pressure (Kpa) at 65°C	
Metric	Imperial Series		COIL R220		SP R290					Coil R220	SP R290
	Inch	MM	Standard	Option1	Standard	Option1	Option2				
	3/16	4.76	0.80					R220, R290	PCC, LWC	13,700	-
6.00		6.00	0.80	1.00	0.80			R220, R290	PCC, LWC	10,500	23,100
	1/4	6.35	0.80	1.00				R220, R290	LWC, PCC, SP	9,800	-
	5/16	7.94	0.80	1.00				R220, R290	LWC, PCC, SP	7,700	-
8.00		8.00	0.80	1.00	0.80			R220, R290	LWC, PCC, SP	7,600	16,800
	3/8	9.52	0.80	1.00				R220, R290	LWC, PCC, SP	6,300	-
10.00		10.00	0.80	1.00	0.80	1.00		R220, R290	LWC, PCC, SP	6,000	13,200
12.00		12.00	1.00		1.00			R220, R250, R290	LWC, PCC, SP	6,300	13,800
	1/2	12.70	0.80	1.00	1.00			R220, R250, R290	LWC, PCC, SP	4,600	13,000
15.00		15.00	1.00		1.00			R220, R250, R290	LWC, PCC, SP	4,900	10,900
	5/8	15.88	1.00		1.00			R220, R250, R290	LWC, PCC, SP	4,600	10,200
18.00		18.00	1.00		1.00			R220, R250, R290	LWC, PCC, SP	4,100	9,000
	3/4	19.05	1.00		1.25			R220, R250, R290	LWC, PCC, SP	3,800	10,700
22.00		22.00	1.00		1.00			R220, R250, R290	PCC, SP	3,300	7,300
	7/8	22.23	1.00		1.25			R220, R250, R290	PCC, SP	3,200	9,100
	1	25.40			1.00			R220, R250, R290	SP		6,200
28.00		28.00			1.50			R220, R250, R290	SP		8,600
	1-1/8	28.58			1.00	1.25		R220, R250, R290	SP		5,500
	1-3/8	34.92			1.25			R290	SP		5,700
35.00		35.00			1.50			R290	SP		6,800
	1-5/8	41.28			1.25			R290	SP		4,800
42.00		42.00			1.50			R290	SP		5,600

2. Marking

OD Size	WT Type	Standard Marking		Note
		Ink Marking (Durable)	Incising (Permanent)	
Full Range	R220, R290	EN12735-1, Trademark, OD X WT, QQ YYYY		Black Ink
	R250	EN12735-1, Trademark, OD X WT 1-1-1, QQ YYYY		Black Ink

3. Finishing

Cleanliness - 10~42mm : 0.20mg/dm2 | 10~42mm : 1.00mg/dm2
End-Cap - Required by the Standard | Required by the Standard

BS EN 1057

Seamless, round copper tubes
for water and gas in sanitary and heating application

1. Size Table

OD	TABLE 1					
	W/TH	Product Type		Maximum Working Pressure : (Bar)		
		STRAIGHT PIPES				
		R250	R290	Hard	1/2H	Anneal
6	0.6	R250	R290	160	130	100
8	0.6	R250	R290	110	90	70
10	0.6	R250	R290	90	70	50
12	0.6	R250	R290	70	60	40
15	0.7	R250	R290	70	50	40
18	0.8	R250	R290	60	50	40
22	0.9	R250	R290	60	50	30
28	0.9	R250	R290	40	30	30
35	1.2	R250	R290	50	40	30
42	1.2	R250	R290	40	30	20

OD	TABLE 2						
	W/TH	Product Type			Maximum Working Pressure : (Bar)		
		STRAIGHT PIPES		COIL			
		R250	R290	R220	Hard	1/2H	Anneal
6	0.8	R250	R290	R220	220	180	140
8	0.8	R250	R290	R220	160	130	100
10	0.8	R250	R290	R220	120	100	70
12	0.8	R250	R290	R220	100	80	60
15	1.0	R250	R290	R220	100	80	60
18	1.0	R250	R290	R220	80	70	50
22	1.2	R250	R290	R220	80	60	50
28	1.2	R250	R290	R220	60	50	40
35	1.5	R250	R290		60	50	40
42	1.5		R290		50	40	30

Maximum working pressure at temperatures up to 65°C, calculated in accordance with the BS 2871 Part 1 formula. If tubes in the Hand 1/2H condition are annealed, eg. during brazing or hard soldering, annealed maximum working pressure should be referred.

* Other sizes & thicknesses can be supplied on request.

2. Marking

OD Size	WT Type	Standard Marking		Note
		Ink Marking (Durable)	Incising (Permanent)	
6-8 mm	R220, R290	OD X WT		Black Ink
10-42 mm	R220, R290	OD X WT	EN1057, Trademark, QQ-YYYY	Black Ink
	R250	OD X WT I-I-I	EN1057, Trademark, QQ-YYYY	Black Ink

3. Finishing

Cleanliness - 10~42mm : 0.20mg/dm2
End-Cap - Unrequired by the Standard



BS EN 13348

Seamless, round copper tubes
for water and gas in sanitary and heating application

1. Size Table

OD	TABLE 1					
	W/TH	Product Type		Maximum Working Pressure : (Bar)		
		STRAIGHT PIPES				
		R250	R290	Hard	1/2H	Anneal
12	0.6	R250	R290	70	60	40
15	0.7	R250	R290	70	50	40
22	0.9	R250	R290	60	50	30
28	0.9	R250	R290	40	30	30
35	1.2	R250	R290	50	40	30
42	1.2	R250	R290	40	30	20

OD	TABLE 2						
	W/TH	Product Type			Maximum Working Pressure : (Bar)		
		STRAIGHT PIPES		COIL			
		R250	R290	R220	Hard	1/2H	Anneal
12	0.8	R250	R290	R220	100	80	60
15	1.0	R250	R290	R220	100	80	60
22	1.2	R250	R290	R220	80	60	50
28	1.2	R250	R290	R220	60	50	40
35	1.5	R250	R290		60	50	40
42	1.5	R250	R290		50	40	30

Maximum working pressures at temperatures upto 65°C, calculated in accordance with the BS 2871 Part 1 formula. If tubes in the Hand 1/2H condition are annealed, eg. during brazing or hard soldering, annealed maximum working pressure should be referred.

* Other sizes & thicknesses can be supplied on request.

2. Marking

OD Size	WT Type	Standard Marking		Note
		Ink Marking (Durable)	Incising (Permanent)	
6-8 mm	R220, R290	OD X WT		Black Ink
10-42 mm	R220, R290	OD X WT	EN13348, OD X WT, Trademark, QQ-YYYY	Black Ink
	R250	OD X WT I-I-I	EN13348, ODXWT, Trademark, I - I - I, QQ-YYYY	Black Ink

3. Finishing

Cleanliness - 10~42mm : 0.20mg/dm2
End-Cap - Required by the Standard

PRODUCT APPLICATION AREAS

Water

Gas

Sanitary

Heating



AS/NZS1571

Seamless tubes
for air conditioning and refrigeration

1. Size Table

OD	Nominal Wall Thickness (MM)					Temper Quality	Product Type	Safe Working Pressure (kPa) at temperature 65°C	
ACT mm	Low-pressure		High-pressure (R410A)					LP	HP
4.76	0.71					HD, Anneal	LWC, PCC	11,412	
6.35	0.71	0.81	0.91			HD, Anneal	LWC, PCC, SP	8,235	9,545
7.94	0.71	0.81	0.91			HD, Anneal	LWC, PCC, SP	6,442	8,465
9.52	0.71	0.81	0.91			HD, Anneal	LWC, PCC, SP	5,296	6,103
12.7	0.71	0.81	0.91			HD, BQ, Anneal	LWC, PCC, SP	3,899	4,482
15.88	0.91	1.02	1.22			HD, BQ, Anneal	LWC, PCC, SP	4,002	4,516
19.05	0.91	1.02	1.07	1.14	1.22	HD, BQ, Anneal	LWC, PCC, SP	3,306	4,190
22.22	0.91	1.14	1.22	1.40	1.63	HD, BQ, Anneal	PCC, SP	2,817	5,203
25.4	0.91	1.22	1.63			BQ, Anneal	SP	2,452	4,511
28.58	0.91	1.22	1.27	1.63	1.83	BQ, Anneal	SP	1,926	4,501
31.75	0.91	1.22	2.03			BQ, Anneal	SP	1,949	4,494
34.92	0.91	1.22	1.63	2.03		BQ, Anneal	SP	1,768	4,063
38.1	0.91	1.22	2.29			BQ, Anneal	SP	2,184	4,443
41.28	0.91	1.22	1.52	1.83	2.41	BQ, Anneal	SP	1,490	4,082
50.8	1.22	1.63				BQ, Anneal	SP	2,189	

2. Marking and Incising

OD Size	Temper	Standard Marking		Note
		Ink Marking (Durable)	Incising (Permanent)	
Full Range	H	Trademark AS/NZS 1571, H, OD X WT	-	Black Ink
	BQ	Trademark AS/NZS 1571, BQ, OD X WT	-	Black Ink
	O	Trademark AS/NZS 1571, O, OD X WT	-	Black Ink

3. Finishing

Cleanliness - 0.20mg/dm2 | 0.20mg/dm2
End-Cap - R410A grade : Pink | Other graded : Green



AS1432

Copper tubes for plumbing,
gasfitting and drainage applications

1. Size Table

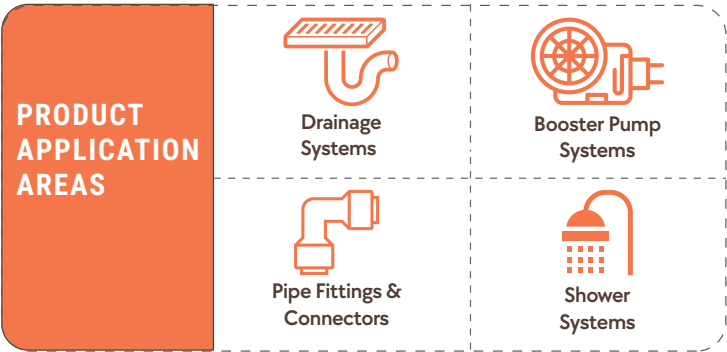
OD		Nominal Wall Thickness (mm)				Temper Quality	Product Type	Safe Working Pressure (kPa) at temperature 65°C	
DN	ACT mm	Type A	Type B	Type C	Type D			Type A	Type B
6	6.35	0.91	0.71			HD, Anneal	LWC, PCC, SP	11,320	8,560
8	7.94	0.91	0.71			HD, Anneal	LWC, PCC, SP	8,810	6,700
10	9.52	1.02	0.91	0.71		HD, Anneal	LWC, PCC, SP	8,350	7,200
15	12.7	1.02	0.91	0.71		HD, BQ, Anneal	LWC, PCC, SP	6,100	5,290
18	15.88	1.22	1.02	0.91		HD, BQ, Anneal	LWC, PCC, SP	5,750	4,810
20	19.05	1.42	1.02	0.91		HD, BQ, Anneal	LWC, PCC, SP	5,560	3,970
25	25.4	1.63	1.22	0.91		HD, BQ, Anneal	SP	4,750	3,500
32	31.75	1.63	1.22		0.91	HD	SP	3,750	2,780
40	38.1	1.63	1.22		0.91	HD	SP	3,100	2,300
50	50.8	1.63	1.22		0.91	HD	SP	2,310	1,710

2. Marking and Incising

OD Size	Temper	Standard Marking		Note
		Ink Marking (Durable)	Incising (Permanent)	
Full Range	H	Trademark, Type, DN size, AS1432, Origin	Trademark, Type, DN size, AS1432	Type A-Green, Type B-Blue Type C-Red, Type D-Black
	BQ	Trademark, Type, DN size, AS1432, BQ, Origin	Trademark, Type, DN size, AS1432, BQ	
	ANNEAL		Trademark, Type, DN size, AS1432	Black Ink

3. Finishing

Cleanliness - Unrequired by the standard | *DN15, 15, 20 BQ-0.2mg/dm2
End-Cap - Unrequired by the standard | Unrequired by the standard



JIS H3300

Copper and copper alloy seamless pipes and tubes

1. Size Table

OD	Wall Thickness									Temper Quality	Product Type
	Type K		Type L		Type M		Acceptable WT range				
ACT mm	0.25	0.30	0.35	0.40	0.50	0.60	0.70	0.80	1.00		
4										O, OL	LWC
5										O, OL	LWC
6										H, 1/2H, O, OL	LWC, PCC, SP
6.35										H, 1/2H, O, OL	LWC, PCC, SP
8										H, 1/2H, O, OL	LWC, PCC, SP
9.52								0.76	0.89	H, 1/2H, O, OL	LWC, PCC, SP
10										H, 1/2H, O, OL	LWC, PCC, SP
12										H, 1/2H, O, OL	LWC, PCC, SP
12.7						0.64			0.89	H, 1/2H, O, OL	LWC, PCC, SP
14										H, 1/2H, O, OL	LWC, PCC, SP
15										H, 1/2H, O, OL	LWC, PCC, SP
15.88							0.71		1.02	H, 1/2H, O, OL	LWC, PCC, SP
16										H, 1/2H, O, OL	LWC, PCC, SP
18										H, 1/2H, O, OL	LWC, PCC, SP
19.05									1.07	H, 1/2H, O, OL	LWC, PCC, SP
20										H, 1/2H, O, OL	PCC, SP
22										H, 1/2H, O, OL	PCC, SP
22.22								0.81		H, 1/2H, O, OL	PCC, SP
25										H, 1/2H, O, OL	SP
25.4										H, 1/2H, O, OL	SP
28.58								0.89		H	SP
31.8										H	SP
32									1.07	H	SP
34.92										H	SP
38.1										H	SP
41.28										H	SP
45										H	SP
50										H	SP

LEVEL WOUND COIL



Plain Level Wound Coil Specification of RR Shramik Level Wound Coil is a coil of copper tubes in which turns are positioned into layers on a spool parallel to the axis of spool such that successive turns in a given layer are next to one another.

1. Size Table

OD mm	W/Thickness (mm)		OD inch	W/Thickness (Inch)		DHP (C12200) : High Phosphorus DLP (C12000) : Low Phosphorus			
	MAX	MIN		MAX	MIN	LWC			
						Soft Annealed (O60)	Light Annealed (O50)	Light Drawn (H55)	Hard Drawn (HD)
4.00	1.00	0.25		0.039	0.010	•	•	•	•
4.76	1.00	0.25	3/16	0.039	0.010	•	•	•	•
5.00	1.00	0.25		0.039	0.010	•	•	•	•
6.35	1.20	0.30	1/14	0.047	0.012	•	•	•	•
7.00	1.2	0.30		0.055	0.012	•	•	•	•
7.94	1.2	0.30	5/16	0.059	0.012	•	•	•	•
9.52	1.2	0.27	3/8	0.065	0.011	•	•	•	•
12.70	1.2	0.37	1/2	0.079	0.015	•	•	•	•
15.88	1.2	0.40	5/8	0.079	0.016	•	•	•	•
19.05	1.25	0.50	3/4	0.079	0.020	•	•	•	•

TEMPER
SOFT ANNEALED-O60
LIGHT ANNEALED-O50
LIGHT DRAWN-H55

SIZES AVAILABLE
Range: OD : 4.76 mm to 19.05 mm
Thickness: 0.25 mm to 1.25 mm

REFERENCE STANDARD:
ASTM B68
ASTM B75, ASTM B837, JIS H3300
BS EN 12735-1, BS EN 12735-2, EN 1057
IS 10773 copper tubes for AC & RF

PRODUCT APPLICATION AREAS

VRV & VRF
- Air Conditioning & Refrigeration Systems

AHU's

HVAC Industry

Heat Exchangers

Evaporator Coils

Capillary Tube Drawing

2. Packing



INNER-GROOVED TUBE



High precision of size, great performance of cooling, high- level of cleanliness and light weight, adaptable to the product, trend of thinner wall thickness, smaller diameter and new types of groove.

Item / Sub Item	Alloy	Outer Diameter	Bottom Wall Thickness TW	Fin Groove Depth HF	Top Angle	Helix Angle	Groove Number
HVAC Inner Grooved Tube	DHP	4.00-12.70	0.15-0.40	0.10~0.30	10-55	12-40	35-75



TEMPER

SOFT ANNEALED-O60
LIGHT ANNEALED-O50

SIZES AVAILABLE

Range: OD : 4.00 mm to 12.70 mm
ID: 3.30mm to 11.60 mm
Thickness: 0.20 mm to 0.62 mm

REFERENCE STANDARD:

JIS H3300
GB/T 20928
IS 10773

PRODUCT APPLICATION AREAS

VRV & VRF
- Air Conditioning & Refrigeration Systems

Capillary Tube Drawing

Heat Exchangers

AHU's

HVAC Industry

Evaporator Coils

PANCAKE COIL



Pancake coil in which the turns are wound into layers parallel to the axis of the coil such that successive turns in a given layer are next to one another: Also called Helical Coil) – Coils up to 100 ft.

OD/ Thickness	0.30 mm	0.35 mm	0.40 mm	0.45 mm	0.50 mm	0.55 mm	0.60 mm	0.65 mm	0.70 mm	0.75 mm	0.80 mm	1.00 mm	1.20 mm	1.50 mm
4.00			•	•	•									
4.76(3/16in)		•	•	•	•	•	•	•	•	•	•	•		
6.00		•	•	•	•	•	•	•	•	•	•	•		
6.35(1/4in)		•	•	•	•	•	•	•	•	•	•	•		
7.94(5/16in)	•	•	•	•	•	•	•	•	•	•	•	•		
8.00	•	•	•	•	•	•	•	•	•	•	•	•		
9.52(3/8in)	•	•	•	•	•	•	•	•	•	•	•	•	•	
12.00		•	•	•	•	•	•	•	•	•	•	•	•	
12.70(1/2in)		•	•	•	•	•	•	•	•	•	•	•	•	
14.00			•	•	•	•	•	•	•	•	•	•	•	
15.00			•	•	•	•	•	•	•	•	•	•	•	
15.88(5/8in)			•	•	•	•	•	•	•	•	•	•	•	
16.00					•	•	•	•	•	•	•	•	•	
19.05(3/4in)							•	•	•	•	•	•	•	
22.22(7/8in)									•	•	•	•	•	

TEMPER

SOFT ANNEALED-O60
LIGHT ANNEALED-O50

SIZES AVAILABLE

Range: OD : 4.76 mm to 22.22 mm
Thickness: 0.25 mm to 1.20 mm
Length: 15m / 15.24m / 18M / 30M

REFERENCE STANDARD:

ASTM B280 (Product Availability Specified As Per ASTM B743),
ASTM B68, ASTM B75, EN1057,JIS H3300
IS 10773 copper tubes for AC & RF



PRODUCT APPLICATION AREAS

VRV & VRF
- Air Conditioning And Refrigeration Systems Field Service

HVAC Servicing Industry

Connecting Kits For Indoor And Outdoor Units

Gas Piping

Civil & Industrial Piping For Air Conditioners

*Sizes as per Customers Requirement can also be provided

STRAIGHT COPPER TUBE

Seamless Copper tubes have an availability in the form of straight cut lengths in soft/ hard temper having various application plumbing, heatexchangers, solar, medical gas piping etc

OD/Thickness	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	1.00	1.20	1.50	1.60	1.80	2.00	2.25	2.50
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
4.00		•	•	•	•	•	•	•	•	•	•								
4.76 (3/16 in)		•	•	•	•	•	•	•	•	•	•								
6.00		•	•	•	•	•	•	•	•	•	•	•							
6.35 (1/4 in)		•	•	•	•	•	•	•	•	•	•	•							
7.00	•	•	•	•	•	•	•	•	•	•	•	•	•						
7.94 (5/16 in)	•	•	•	•	•	•	•	•	•	•	•	•	•						
8.00	•	•	•	•	•	•	•	•	•	•	•	•	•						
9.52 (3/8 in)	•	•	•	•	•	•	•	•	•	•	•	•	•						
10.00	•	•	•	•	•	•	•	•	•	•	•	•	•						
12.00		•	•	•	•	•	•	•	•	•	•	•	•	•					
12.70 (1/2 in)		•	•	•	•	•	•	•	•	•	•	•	•	•					
14.00			•	•	•	•	•	•	•	•	•	•	•	•					
15.00			•	•	•	•	•	•	•	•	•	•	•	•					
15.88 (5/8 in)			•	•	•	•	•	•	•	•	•	•	•	•					
16.00						•	•	•	•	•	•	•	•						
19.05 (3/4 in)						•	•	•	•	•	•	•	•	•					
22.22 (7/8 in)						•	•	•	•	•	•	•	•	•	•				
25.4 (1 in)									•	•	•	•	•	•	•				
28.58 (1-1/8 in)									•	•	•	•	•	•	•				
31.75 (1-1/4 in)												•	•	•	•	•			
34.92 (1-3/8 in)												•	•	•	•	•	•		
38.10 (1-1/2 in)												•	•	•	•	•	•		
41.28 (1-5/8 in)												•	•	•	•	•	•	•	
44.45 (1-3/4 in)														•	•	•	•	•	•
50.8 (2 in)														•	•	•	•	•	•

- TEMPER

LIGHT ANNEALED O50

LIGHT DRAWN - H55

HARD DRAWN - HD
- SIZES AVAILABLE

Range: OD: 4.76mm - 50.8mm (3/16" ~ 2" OD)

Thickness: 0.41 mm to 2.00 mm

Length: 3 m / 6 m / 10ft / 20ft

REFERENCE STANDARD

ASTM B280 (Product Availability Specified)

As Per ASTM B68, ASTM B75, EN1057, JIS H3300

IS 10773 Copper Tubes for AC & RF



PRODUCT APPLICATION AREAS



VRV & VRF

Air Conditioning And Refrigeration Systems Field Service



Heat Exchangers



Chillers



Solar Equipment



Medical Gas Piping



Electrical Heaters



Piping for water, gas, and oil



General Engineering Purpose



Plumbing

COPPER TUBE - COATING WITH PVC (For LPG Purpose)

Seamless Copper tubes are available with PVC coating. Copper tubes are sheathed with polyvinyl chloride through continuous extrusion process to protect the tubes from external damages allowing it to be placed in tough environmental conditions.



CHEMICAL COMPOSITION:

Chemical Composition of copper tube shall be Copper + silver min 99.90% | Phosphorous min 0.0150 to 0.0400 %

PVC Copper tube and bare copper tubes in coils form and straight form

Size Range : 9.52mm

Coil form

Length : Coil: Standard (15.24m/30.48m) (50ft/100ft)

PVC available in Black, Blue, White, Red, Yellow

REFERENCE STANDARD:

ASTM B280, BS EN 1057

ASTM B88 : Seamless Copper Water Tube.

PRODUCT APPLICATION AREAS



Plumbing



Solar



Sanitary



Natural Gas



LPG Cylinder

CAPILLARY TUBES

Capillary Tubes are produced in perfect size bore ensuring with highest cleanliness, having smooth inner surface and mirror finish, suitable for air conditioners, refrigerators, freezers, thermostats and other refrigeration systems. We have come up as Trustworthy source to get capillary Tubes. These Capillary Tubes are admired by the OEMs Of Air Conditioning Equipment and Refrigeration Systems. These Capillary Tubes Comply with the set ASTM and JIS Standards.



Details:

Size:1.00 mm OD to 4.00 mm OD.

Wall Thickness:0.40 mm to 2.50 mm

Straight Length:Up to 3 Meter Hard or Soft

Coils:Multilayer's Up to 20 KG.

Products Specification:

Refrigeration & Air Conditioning Grade Capillary Tubes As per ASTM B/360 Hard Drawn/ Bright Annealed With Mirror Finish Inside & Outside, Compatible with R-134a/R-410a/R-407a,Hydrocarbons.

PRODUCT APPLICATION AREAS



Air Conditioners



Refrigerators



Display Chillers



Heat Pumps



Water Coolers

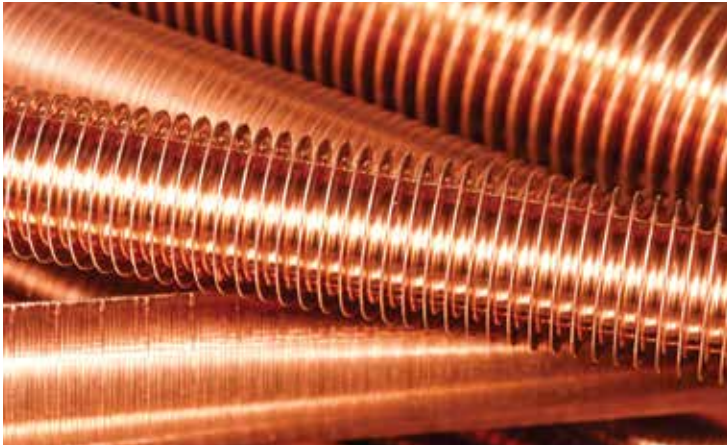
FINNED COPPER TUBES

Finned Copper Tubes are specially engineered copper tubes with enhanced external and internal surfaces that increase heat transfer area, ensuring efficient heat dissipation and improved thermal performance.

- Details:**
- Size: 12.7 to 25.4 mm (1/2" to 1")
 - Wall Thickness – Unenhanced Section: 1.20 to 2.40 mm
 - Wall Thickness – Enhanced Section: 0.80 to 2.10 mm
 - Straight Length: 300 to 6000 mm
 - Temper: H55 and O61

Reference Standard:
ASTM B359 | IS 10773

Quality Assurance:
100% Air Leakage Tested | Zero-Defect Fin Tube



GLOBAL STANDARDS

- U.S. Standards ASTM / ASME**
- ASTM B68 – Seamless Copper Tube, Bright Annealed
 - ASTM B75 – Seamless Copper Tube, Annealed or Drawn (General Purpose)
 - ASTM B88 – Seamless Copper Water Tubes (Type K, L, M)
 - ASTM B280 – Seamless Copper Tube for Air Conditioning & Refrigeration (ACR)
 - ASTM B819 – Seamless Copper Tube for Medical Gas Systems

- Japanese Standards (JIS)**
- JIS H3300 – Copper and Copper Alloy Tubes

- British Standards (BS / EN)**
- BS EN 1057 – Copper and Copper Alloys – Seamless, Round Copper Tubes for Water and Gas in sanitary and heating applications
 - BS EN 12735-1 – Copper Tubes for Air Conditioning & Refrigeration (Seamless, Round)
 - BS EN 1412 – Copper and Copper Alloys – European Numbering System (e.g., CW024A = Cu-DHP)

- AS**
- AS1432 – Copper tubes for plumbing, gas fitting and drainage application.
 - AS1571 – Seamless Tubes for air conditioning and refrigeration.

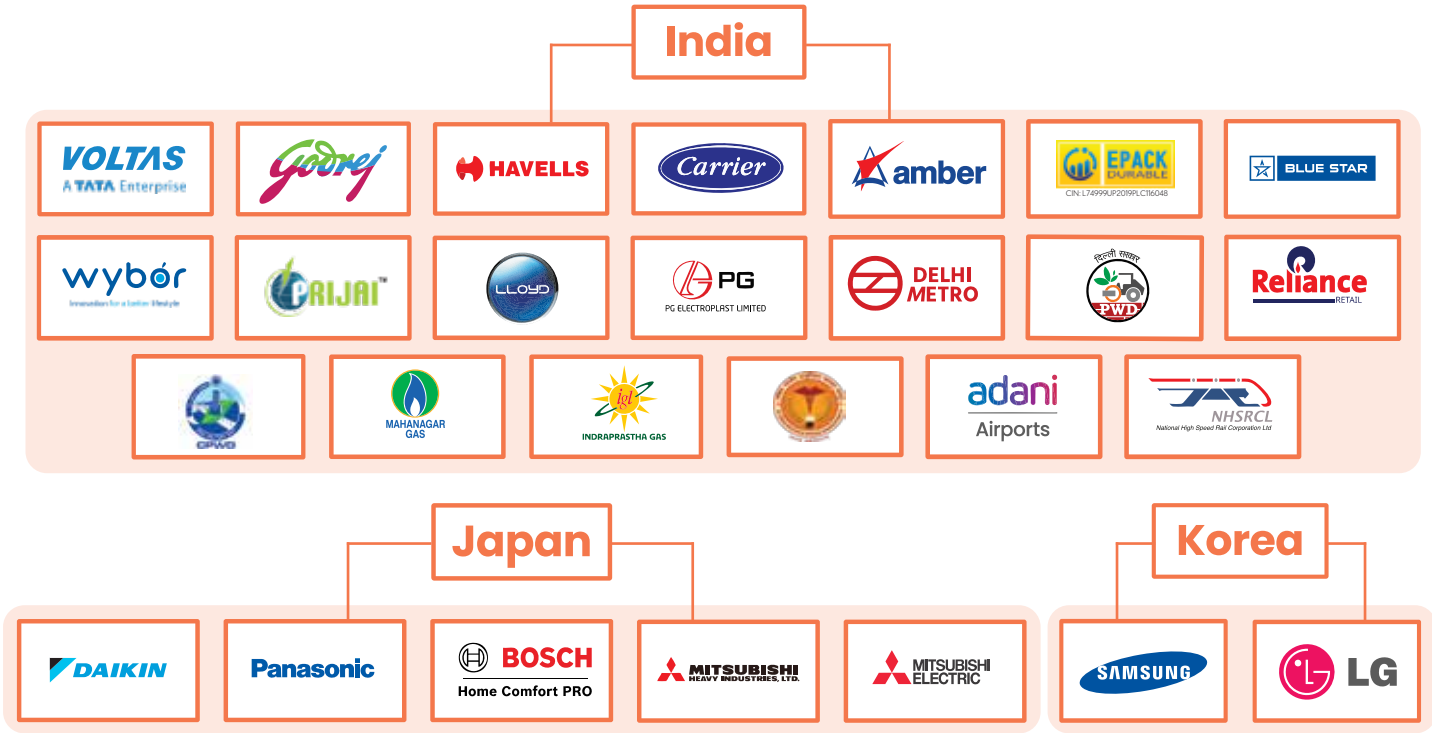
- Gulf Standards GSO / SASO / QCS References:**
- GSO EN 12735-1 / 1057 (Adopted from European Standards)
 - SASO 499/2019 – Saudi Standard for Copper Tubes for Plumbing and HVAC
 - QCS (Qatar Construction Specification) follows BS EN 1057

- LRS Approved Copper Tubes:**
- ASTM B111 OR BS EN 12451

- NZS**
- NZS1571 – Seamless Tubes for air conditioning and refrigeration.

- BIS**
- IS 10773 : 2025 – Wrought copper tubes used in refrigeration and air-conditioning (AC) purposes
 - IS 2501 : 1995 – Solid Drawn Copper Tubes for General Engineering Purposes

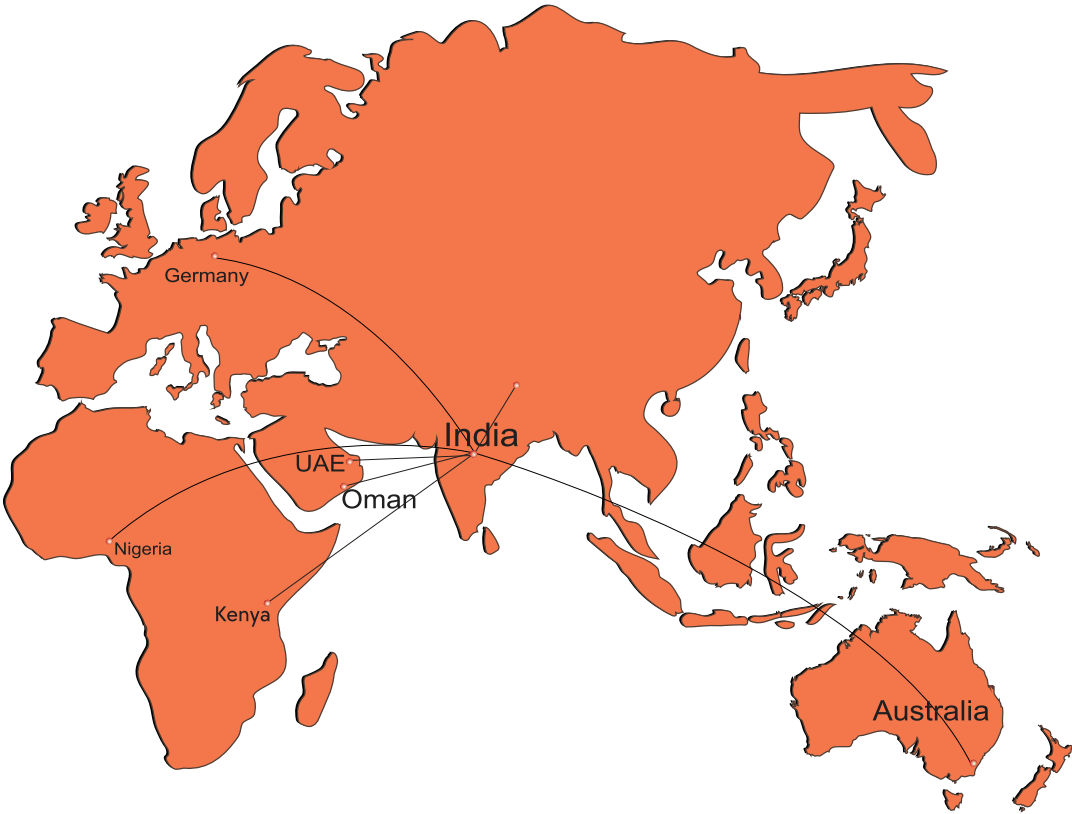
Approvals & Clientele



Certificates



Global Sales Network





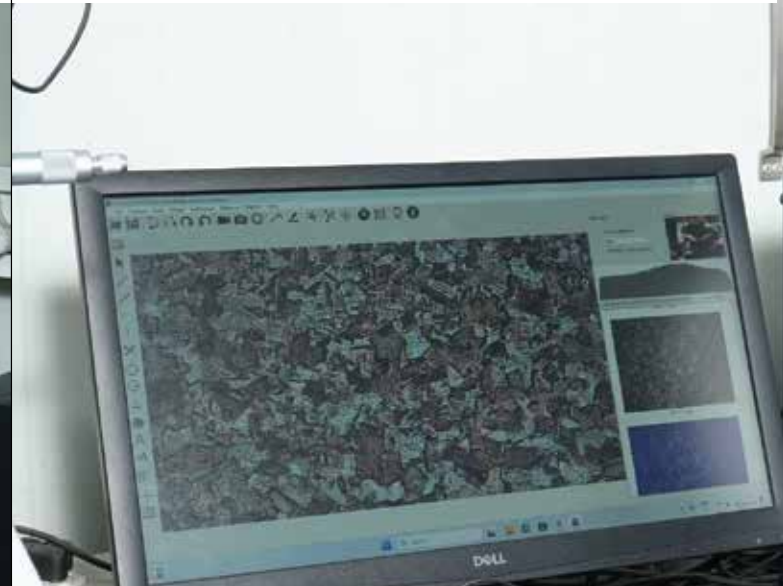
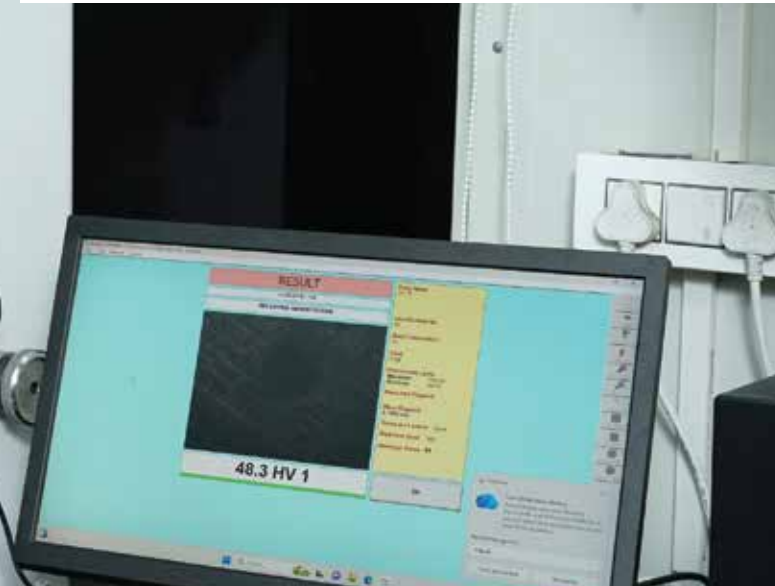
Mother Tube Casting



Surface Milling Machine



Rolling Machine



PRODUCTION STRENGTH



Spinner Block



LWC Machine



MOSQUITO COIL FORMING MACHINE



ANNEALING FURNACE



SMART WAREHOUSE