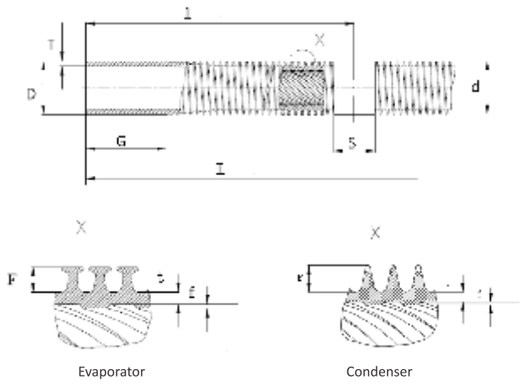
FIN TUBES & PVC COPPER TUBES

INTEGRAL LOW FINNED TUBES		
	OD	
Low Finned Tubes	19 / 26 / 42 / 56 fpi	
Outer & Inner Fin	**OD**	**ID**
Condenser	43 fpi	43 / 34 fpi
Evaporator	43 fpi	43 / 34 fpi
	56 fpi	43 / 34 fpi
Alloy *Tube OD Range*	Copper / Cupro-Nickel / Brasses 15.88 mm - 25.4 mm	



Evaporator Condenser

- D – Outer Diameter of Plain End
- d – Outer Diameter of Finned Section
- T – Wall Thickness of Plain End
- F – Fin Height (OD)
- G – Plain End Length
- t – Root Thickness
- f – Fin Depth
- S – Skip Distance
- L – Total Length of Fin Tube

PVC COATED COPPER TUBES FOR GAS & WATER

In Coil Form :
Size – 6mm to 22mm
Length – 15mtrs. to 120 mtrs.

In Straight Form :
Size – 6mm to 42mm
Length – upto 7mtrs.

ARAI Approval For Different Applications, **VIZ., CNG, PNG, LPG GAS & WATER** Etc.

Pvc Coating Is Available In **BLACK, BLUE, WHITE, RED & YELLOW**
Specifications: ASTM / BS-EN & Other Similar Standards
Grades: ASTM: C12200 / BS: 106

Project Approvals : ARAI, Engineers India Limited, MECON Limited, TATA, RoHS, Toyo India

Our Prestigious Clients :

DAIKIN, Carrier, SAMSUNG, TOSHIBA, HITACHI, MITSUBISHI, BLUE STAR, Kirloskar, VOLTAS LIMITED, LG, ETA, ETA, Panasonic, STERLING AND WILSON, GENERAL, FUJITSU & Many more....

99 100 13099

Mehta Group - The Radiant Star of Indian Copper Industry

Office: 915-916, Plaza Panchshil, 9th floor, 55 Hughes Road, Mumbai - 400 007 INDIA
Tel: +91 22 4340 4040 **Fax:** 4340 4050 **E-mail:** sales@mehta-group.com **Website:** www.mehtatubes.com
Unit 1: Char Rasta, Nanapondha, Taluka Kaprada **Dist:** Valsad, Gujarat, Pin - 396126, India
Unit 2: Survey No. 46/1, Ganga Devi Road, Palgam, Umbergaon **Dist:** Valsad, Gujarat, Pin - 396170, India
Daman Unit: Plot No. 100/101, Panchal Udyog Nagar, Bhimpore, Daman (U.T.), Pin - 396120, India

MEHTA TUBES LTD.
The Company With Mettle

MEXFLOW
Quality & Dependability

MEHTA TUBES LTD.

MEXFLOW

ECO-FRIENDLY RECYCLABLE LONG LASTING

MEXFLOW®
Quality & Dependability

MEXFLOW COPPER TUBES FOR HVAC & R

CHEMICAL COMPOSITION

1. DHP Copper
- Phosphorus - 0.015 to 0.040 %
- Copper - Remainder

2. DLP Copper
- Phosphorus - 0.005 to 0.012 %
- Copper - Remainder

TEMPER - H, HH, 1/4H, O (soft annealed), OL (light annealed)

Mehta Tubes is one of India's leading manufacturers and exporters of an exclusive range of high quality copper and copper alloy products. Synonymous with quality and reliability, it is the only manufacturer in India to have an In-House Carbon Content Test facility as per EN 723. **MEXFLOW** products are applied to an array of applications, and are ideal for use in Air Conditioning and Refrigeration systems, Medical Gas pipeline or vaccum installations in Hospitals and in a wide range of Plumbing activities.

The use of copper in air-conditioning and refrigeration systems has multiplied in the recent past. **MEXFLOW** copper tubes are compatible for **CFC-free R410 refrigerant for VRV, VRF, Split AC, Visicooler, Refrigerator and ACR applications** and they all come with an approved seal from Eddy Current Testing and Carbon Content Test. **MEXFLOW** copper tubes are designed in a manner to combat in appropriate conditions and give the product a longer life span.

MEXFLOW copper pipes thrive by its motto, Hygiene for Life. Hence the company promotes going the eco-friendly, recyclable way. **MEXFLOW** copper pipes are ideal for drinking water, central heating, sanitation, hot and cold water, gas, various engineering. These products are 100% leak proof as it does not require threading like plastic counterparts. As copper pipe is corrosion resistant, there is no fear of rust mixing with drinking water as with the galvanised iron pipes.

MEXFLOW copper pipes conform to following specification:
IS / ASTM B68, B75, B88 & B280 / BS:EN 1057 / BS:EN 13348 / JISH 3300 / BS 2871 / EN 12735

Testing facilities available In-house with **MEXFLOW:**
- Spectrometer (Chemical Composition Test)
- Eddy current test
- Tensile/Elongation tests
- Hydrostatic test
- Pneumatic test
- Carbon Determinator (Carbon Content Test as per BS: 723)
- Degreasing
- Carbon film test
- Brand Identification
- Grain size test
- Hydrogen embrittlement test

OUR ACR PRODUCT RANGE

PLAIN TUBES
Outer Diameter - 4.76 MM to 159 MM
WT - 0.35 MM to 3.0 MM
Straight length - upto 6 MTRS

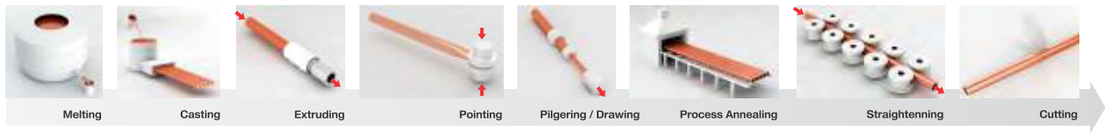
WEIGHT CALCULATION
(OD-WT) x WT x 0.0281=KGS/MTR

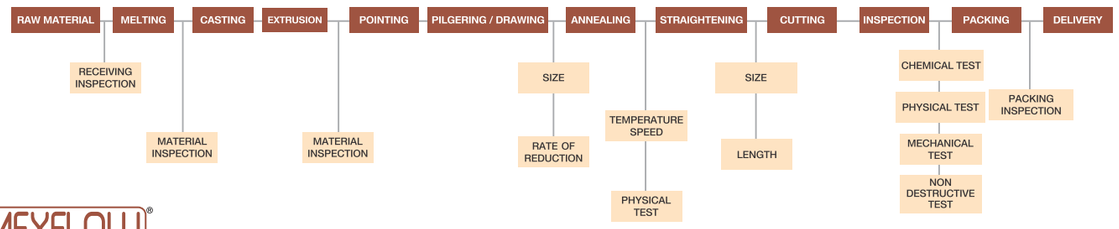
CAPILLARY TUBES
Outer Diameter - 1.5 MM to 3 MM
Wall - 0.3 MM & 0.6 MM
Length - Straight lengths as per customer needs

PANCAKE COILS SINGLE LAYER
Outer Diameter - 4.76 MM to 19.05 MM
Wall - 0.41 MM & 1.65 MM
Length - 15 MTRS & 30 MTRS

DOUBLE LAYER
Outer Diameter - 4.76 MM to 19.05 MM
Wall - 0.41 MM & 1.24 MM
Length - 15 MTRS & 30 MTRS

MANUFACTURING PROCESS





MEXFLOW® *Quality & Dependability*

INSTALLATION GUIDE LINES

VRV/VRF Air Conditioning systems Installation guide lines.

Heat/Flame Source: Brazing shall be carried out using Oxy-acetylene/ Diluted Acetylene flame source capable of achieving brazing temperatures of above 650 degrees and below the melting point of the base metal. Liquid Petroleum Gas (LPG) should not be used for brazing of copper tubes.

Copper to Copper Brazing - should be made using a silver-copper-phosphorous brazing alloy filler metal product Code CP-105 (2% Silver Brazing alloy Rod conforming to BS EN:1044:1999) to prevent future leakages.
Only Copper - Phosphorous brazing filler metals with Zero % Silver cannot withstand Linear Expansion & Contraction due to temperature variation on the jointing of the installed pipeline.
Note: Current Indian practice of applying Brazing Filler metal (Brazing Rod) is Zero % Silver content, i.e. alloy of Copper & Phosphorous.

 # Use of N2 internal inert gas shield
Oxygen Free Nitrogen (Inert Gas Shield) Purging - Brazing should be carried out using Oxygen free Nitrogen as an internal inert gas shield to prevent the formation of oxides on the inside of the pipes and fittings. This method leaves a bright, clean bore. Some slight burnishing may occasionally be observed on sectional joints. Purging is still required to remove the internal shield gas and the other particulate matter associated with the brazing operation.
Oxygen free nitrogen should be supplied continuously to the inside of the pre-assembled, un-brazed pipe work through a pressure regulator and flow controller or flow regulating device. Supply of Nitrogen should not be discontinued till the brazed area of the pipe is cooled down. Wet cloth can be applied for fast cooling.
It is recommended that the pipeline to be brazed should first be flushed to remove the air. This may be followed during the brazing operating by a continuous or intermittent flow as necessary to prevent the ingress of air. Pipe ends may be capped if desired to direct the flow of nitrogen into sections of the pipe or pipes to be brazed.

 # Copper Pipe: Preferably Half Hard Drawn in Straight Length & Annealed (Soft) Conditioned in Coil Form
DHP Grade, Extruded, Seamless, Round De-greased (free from Carbon content & oil residue) Copper & Copper alloy Pipe conforming to JIS H 3300/ ASTM B-280, B 68, B88, B 75 on Half Hard Drawn & Annealed conditioned suitable for VRV/VRF System Installation.
Preferred Brand for Copper: 'MEXLOW'

 # Pipe Jointing Fittings:
Pipe Jointing Fittings should be end-feed capillary fittings conforming to ASME
B-16.22
Preferred Brand 'MEXFLOW'

Pipe Preparation:
Pipe ends should be cut square with pipe axis using sharp wheel cutter whenever possible and be cleaned to get rid of any cuttings or burrs.

Safety:
If working for prolonged period in very confined spaces, precautions must be taken to avoid excessive build-up of Nitrogen by ventilating the space or by piping the shield gas safely out of the space. The oxygen content of an ambient air should be monitored when brazing in a confined space.

Inspection of Joints.
Inspection of joints should be carried out on the basis of work progresses for each team performing installation in accordance with following procedure: The site Engineer should identify a number of fittings to be cut out for examination in order to establish the quality of finished joints. The exact number of cut will vary with the size of installation. As a guide of ratio one fitting per 100 should be cut out, a minimum of ten for all system should be cut out for examination. It is preferable to perform these checks before pressure testing the section of pipelines.
The Fittings cut out should be cut open (Quartered longitudinally) and examined. If unacceptable joints are found, adjacent fitting should be cut out until the extent of any faulty workmanship has been established. This may require extensive removal of sections of the installation.

Penetration of Brazing alloy (Brazing filler metal):
Due to tolerances of the capillary space on those pipes and fittings, full penetration of the brazing filler metal may not occur and is not necessary.
The maximum penetration at any point on the joint must be three times of the wall thickness of the tube or 3 mm which is greater.
The pipe should be fully inserted up to the shoulder of the fittings. These tests can be carried out on a sectional basis.

Capping:
Sections of pipeline should be capped as soon as they are completed so as to prevent ingress of debris.

Internal cleanliness:
The Tubes & Fittings should be internally clean & free from oxides after the installation. Some heat burnishing may be apparent and is acceptable.

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TECHNICAL REQUIREMENTS

SPECIFICATION	CHEMISTRY		TEMPER	UTS (MIN)	% ELONGATION	HARDNESS	GRAIN SIZE	INTERNAL
	PHOSPHORUS	COPPER		N/mm2	min.		at 75 X (mm)	Cleanness
ASTM B 68	0.015 - 0.40%	99.90% MIN	Light Annealed (O50)	210	40	NA	0.015 - 0.040	NA
ASTM B 75			Soft Annealed (O60)	210	40	NA	0.040 Min	NA
			Half Hard (H55)	250-325	NA	30-60 (HR 30T)	NA	NA
			Hard (H80)	310 Min	NA	55 Min (HR 30T)	NA	NA
ASTM B 280			Soft Annealed (O60)	205	40	NA	0.040 Min	0.038g/m2 Max
			Hard (H58)	250	NA	NA	NA	
JIS H 3300			Light Annealed (OL)	205	40	73 VPN Max	0.040 Max	NA
			Soft Annealed (O)	205	40	69 VPN Max	0.025-0.060	NA
			Half Hard	245-325	NA	70-110 VPN	NA	NA
			Hard	315 Min	NA	100 VPN Min	NA	NA
EN 12735			Annealed (R220)	220 Min	40	40 - 70 VPN	NA	38mg/m2 Max
			Half Hard	250 Min	30	75-100 VPN	NA	38mg/m2 Max
			Hard	290 Min	3	100 VPN Min	NA	38mg/m2 Max
							* CARBON CONTENT	

DIMENSIONS & PRESSURE RATING

VRV/VRF INSTALLATIONS - SOFT / ANNEALED (STANDARD) STANDARD COIL LENGTH: 50FT

JIS H 3300:1997

OD		No of Coils	THK	WT / COIL	Bursting Pressure at room Temperature		
Inch	mm	Carton	MM	KG	Temper	psi	Mpa
1/4"	6.40	15.00	0.80	1.92	Soft	2778	19.15
3/8"	9.52	10.00	0.80	2.98	Soft	1802	12.42
1/2"	12.70	7.00	0.80	4.08	Soft	1327	9.15
5/8"	15.88	5.00	0.80 / 1.00	5.18 / 6.40	Soft	1050 / 1326	7.24 / 9.14
3/4"	19.05	4.00	1.00	7.73	Soft	1096	7.56
7/8"	22.22	3.00	0.88	8.00	Soft	-	-

Safety Factor = 3

ASTM B 280 - 03

OD		No of Coils	THK	WT / COIL	Bursting Pressure at room Temperature		
Inch	mm	Carton	MM	KG	Temper	psi	Mpa
1/4"	6.40	15.00	0.762	1.84	Soft	2381	16.42
3/8"	9.52	10.00	0.813	3.02	Soft	1708	11.77
1/2"	12.70	7.00	0.813	4.14	Soft	1280	8.83
5/8"	15.88	5.00	0.889	5.71	Soft	1120	7.72
3/4"	19.05	4.00	0.889 /1.07	6.91 / 8.24	Soft	933 / 1123	6.43 / 7.74
7/8"	22.22	3.00	1.14	10.29	Soft	-	-

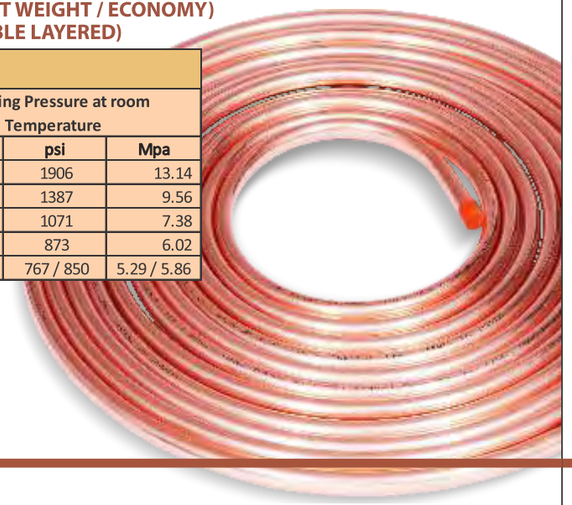
Safety Factor = 3

NON-VRV/VRF INSTALLATIONS - SOFT / ANNEALED (LIGHT WEIGHT / ECONOMY) STANDARD COIL LENGTH: 50FT (SINGLE LAYERED / DOUBLE LAYERED)

ASTM B 68

OD		No of Coils	THK	WT / COIL	Bursting Pressure at room Temperature		
Inch	mm	Carton	MM	KG	Temper	psi	Mpa
1/4"	6.40	15.00	0.61	1.50	Soft	1906	13.14
3/8"	9.52	10.00	0.66	2.50	Soft	1387	9.56
1/2"	12.70	7.00	0.68	3.50	Soft	1071	7.38
5/8"	15.88	5.00	0.69	4.50	Soft	873	6.02
3/4"	19.05	4.00	0.713 / 0.8	5.60 / 6.30	Soft	767 / 850	5.29 / 5.86

Safety Factor = 3



MEHTA TUBES LTD.

DIMENSIONS & PRESSURE RATING

SPECIFIC REQUIREMENT FOR VRV/VRF INSTALLATIONS - HARD & HALF HARD STRAIGHT LENGTH : 3.05 MTR | 5.80 MTR | 6.00 MTR

ASTM B 280 - 03

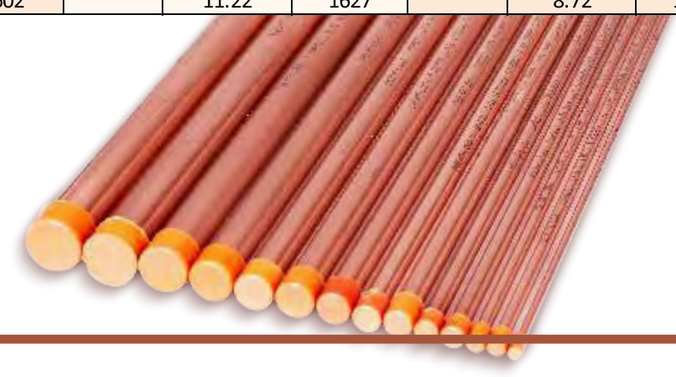
OD		THK	WT/MTR	Bursting Pressure at room Temperature		
Inch	MM	MM	KG	TEMPER	psi	Mpa
1/4"	6.35	-	-		-	-
3/8"	9.52	0.76	0.19	HARD	3592	24.77
1/2"	12.70	0.89	0.30	HARD	3154	21.74
5/8"	15.90	1.02	0.43	HARD	2887	19.9
3/4"	19.10	1.07	0.54	HARD	2521	17.38
7/8"	22.30	1.14	0.68	HARD	2300	15.86
1 1/8"	28.60	1.27	0.98	HARD	1998	13.78
1 3/8"	34.90	1.40	1.32	HARD	1805	12.44
1 5/8"	41.30	1.52	1.70	HARD	1656	11.42
2 1/8"	54.00	2.03	2.96	HARD	1483	10.23
2 5/8"	66.70	2.03	3.69	HARD	1370	9.44
3 1/8"	79.40	2.29	4.96	HARD	1298	8.95
3 5/8"	92.10	2.54	6.39	HARD	1241	8.56
4 1/8"	104.78	2.79	8.00	HARD	1196	8.24

Bursting Pressure = 2* UTS* THK/(OD-0.8*THK)/Safety Factor Safety Factor = 2

JIS H 3300-2018

OD		Thickness	WT / MTR	Bursting Pressure at Room			Bursting Pressure at Room		
Inch	MM	MM	KG	Temper	Mpa	psi	Temper	Mpa	psi
1/4"	6.35	0.80	0.125	Hard	44.13	6399	Half Hard	34.33	4977
3/8"	9.52	0.80	0.196		28.38	4115		22.07	3200
1/2"	12.7	0.80	0.268		20.90	3030		16.25	2357
5/8"	15.88	0.80 / 1.00	0.339 / 0.418		16.54 / 20.89	2398 / 3029		12.86 / 16.25	1865 / 2356
3/4"	19.05	0.80 / 1.00	0.410 / 0.507		13.70 / 17.30	1985 / 2503		10.60 / 13.40	1544 / 1947
7/8"	22.23	0.80 / 1.00	0.482 / 0.597		11.70 / 14.70	1692 / 2131		9.10 / 11.40	1316 / 1658
1"	25.4	0.88 / 1.00	0.606 / 0.686		11.20 / 12.80	1628 / 1857		8.70 / 10.00	1266 / 1444
1 1/8"	28.6	1.00	0.776		11.33	1643		8.81	1278
1 1/4"	31.75	1.10	0.947		11.22	1628		8.73	1266
1 3/8"	34.9	1.21	1.145		11.23	1629		8.74	1267
1 1/2"	38.1	1.32	1.364		11.22	1628		8.73	1266
1 5/8"	41.3	1.43	1.602		11.22	1627		8.72	1265

Safety Factor = 2



MEXFLOW®

Quality & Dependability

PRODUCT	TYPE	SIZE RANGE	SPECIFICATION
ELBOW 90 DEG	C x C	¼" to 4.1/8"	ASME B 16.22
ELBOW 45 DEG	C x C	¼" to 4.1/8"	
REDUCER ELBOW 90 DEG	C x C	¼" to 2.1/8"	
COUPLER / SOCKET	C x C	¼" to 5.1/8"	
EQUAL TEE	C x C x C	¼" to 4.1/8"	
COUPLER / SOCKET REDUCER	C x C	¼" to 4.1/8"	
COUPLER / SOCKET REDUCER	F x C	¼" to 4.1/8"	
REDUCER TEE	C x C x C	½" to 1.3/8"	
END CAPS	C	¼" to 4.1/8"	
PRODUCT	**TYPE**	**SIZE RANGE**	**SPECIFICATION**
ELBOW 90 DEG	C x C	12mm to 159mm	EN 1254
ELBOW 45 DEG	C x C	12mm to 54mm	
REDUCER ELBOW 90 DEG	C x C	12mm to 76.1mm	
COUPLER / SOCKET	C x C	12mm to 159mm	
EQUAL TEE	C x C x C	12mm to 108mm	
COUPLER / SOCKET REDUCER	C x C	12mm to 108mm	
COUPLER / SOCKET REDUCER	F x C	12mm to 108mm	
REDUCER TEE	C x C x C	12mm to 108mm	
END CAPS	C	12mm to 108mm	

** "C" Indicates that an end is the same Diameter as the Copper Tube so it will slide into another Fitting Designed for Copper Tube

MEHTA TUBES LTD.

MEXFLOW®

Quality & Dependability

SILVER COPPER PHOSPHORUS BRAZING ALLOYS:

MEXFLOW offers a wide range of High Quality Silver Copper Phosphorus Brazing Alloys in various shapes like rods, wires & strips (flat type) These alloys are extensively used for joining copper & copper based alloys. They have self-fluxing properties when used on copper.

PRODUCT NAME	MELTING RANGE		COMPOSITION					APPLICABLE STANDARDS				
	SOLIDUS	LIQUIDUS	Ag %	Cu %	P %	Zn %	Cd %					
MEXFLOW 0P	710°C	820°C	-	92.50%	7.50%	-	-	BA Cu P2	BCuP-2	L-CuP7	CP3	CP202
	Extremely Fluid at Brazing Temperature & will penetrate joints with very small clearance											
MEXFLOW 2P	645°C	825°C	2%	91.20%	6.80%	-	-	BA Cu P3	BCuP-6	L-Ag2P	CP2	CP105
	Has very good flow characteristics at higher end of its brazing range & penetrate joints having little clearance											
MEXFLOW 5P	643°C	815°C	5%	89%	6%	-	-	BA Cu P4	BCuP-3	L-Ag5P	CP4	CP104
	Has good flow & wetting properties on Copper & Copper Alloys											
MEXFLOW 43	615°C	620°C	43%	16%	-	20%	21%	BA Cu Ag 16A				
	Used in Brazing Copper, Brass, Aluminum & Manganese Broznes, Copper-Nickel Alloys & Nickel Silver. It is easy to use, has got the shortest melting range & excellent flow properties											