



Copper Tube



MEDICAL GAS
COPPER TUBE
TO EUROPEAN
STANDARD
BSEN 13348

USAGE

- Medical Gas
- Vacuum Lines

www.kembla.com.au



Copper Tube

MM Kembla has been providing our customers with the highest quality and most reliable products and services for over 100 years. Established in 1916, MM Kembla is Australia's only copper tube manufacturer. Still operating from its original site at Port Kembla, NSW Australia, MM Kembla remains the most highly regarded supplier of copper products including tube, fittings and accessories. Extensive technical knowledge combined with stringent in-house quality controls and testing with an ISO 9001 certified quality management system, MM Kembla has developed a renowned reputation for quality, reliability and service.



MEDICAL GAS TUBE

KEMBLA® copper tube is manufactured to a variety of international standards, and included in the KEMBLA® range is Medical Gas tube manufactured to fully conform to EN 13348 specifications and is available from 8mm to 159mm diameter in the equivalent wall thicknesses of 'Table X'. EN 13348 copper tube is specified throughout Europe, the Middle East and Asia, and is the only copper tube specified in the Health Technical Memorandum 02-01 and ISO 7396-1, which dictate the current best practice for the installation of pipelines for compressed medical gas and vacuum systems.

The internal cleanliness of medical gas and oxygen tubes is critical in order to prevent gas contamination and potential explosions. MM Kembla has a unique manufacturing process to ensure the carbon cleanliness does not exceed 0.02g/m² total carbon, as specified in the Standard for sizes up to 54mm. Sizes over 54mm are not specified in EN 13348 but MM Kembla does supply these to the same internal cleanliness specifications. Tests are conducted by a certified laboratory using the combustion method as stipulated in EN 737. After cleaning, all tubes are individually end-capped to maintain their internal cleanliness, then bundled and wrapped in plastic for maximum protection.

All tubes are certified under a StandardsMark Licence and Test Certificates are provided for each product with all deliveries. Straight lengths of 5.8m are manufactured for ease of containerisation.

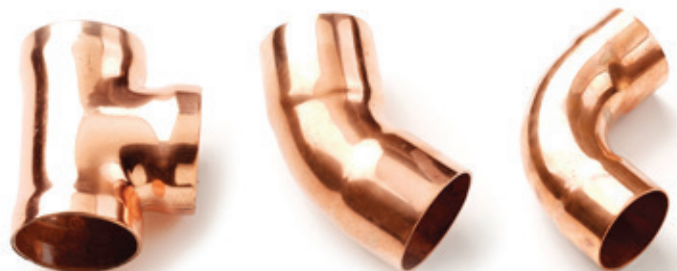
MEDICAL GAS FITTINGS

TO EUROPEAN STANDARD EN 1254

MM KEMBLA is a leading supplier of a comprehensive range of copper fittings conforming to a variety of applications and International Standards. KEMBLA® fittings are marketed under the famous KEMBLA® and K Tick brand marks. A full range of fittings is available to suit KEMBLA® EN 13348 Medical Gas tube from 8mm to 159mm.

KEMBLA® Medical Gas fittings are manufactured in accordance with European Standard EN 1254 and individually cleaned, bagged and labeled to fully comply with the cleanliness requirements of EN 13348 and HTM 02-01.

All bags of fittings are individually marked as suitable for Medical Gas purposes.



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KEMBLA® MEDICAL GAS TUBE TO EN 13348

| PRODUCT CODE | OUTSIDE DIAMETER (mm) | WALL THICKNESS (mm) | WEIGHT/LENGTH (kg/5.8m) | SAFE WORKING PRESURE* | | LENGTHS PER BUNDLE |
|---------------------|-----------------------|---------------------|-------------------------|-----------------------|--------------------|--------------------|
| | | | | ANNEALED (kPa) | AS SUPPLIED (kPa) | |
| T11850 | 8.0 | 0.8 | 0.94 | 8,110 | 13,850 | 100 |
| T11860 | 10.0 | 0.8 | 1.20 | 6,360 | 10,860 | 100 |
| T11905 | 12.0 | 0.8 | 1.46 | 5,230 | 8,940 | 100 |
| T20944 | 15.0 [#] | 0.7 | 1.63 | 3,590 | 5,440 [#] | 100 |
| T14276 | 22.0 [#] | 0.9 | 3.09 | 3,130 | 4,740 [#] | 100 |
| T14313 | 28.0 [#] | 0.9 | 3.98 | 2,440 | 3,690 [#] | 50 |
| T14216 | 35.0 | 1.2 | 6.61 | 2,460 | 4,200 | 50 |
| T63596 | 42.0 | 1.2 | 7.98 | 2,040 | 3,480 | 50 |
| T21976 | 54.0 | 1.2 | 10.33 | 1,580 | 2,700 | 25 |
| T74049 | 66.7 | 1.2 | 12.81 | 1,270 | 2,170 | 25 |
| T78600 | 76.1 | 1.5 | 18.24 | 1,400 | 2,390 | 20 |
| T64437 | 108.0 | 1.5 | 26.04 | 980 | 1,670 | 10 |
| T84303 | 133.0 | 1.5 | 32.15 | 790 | 1,360 | 10 |
| T13457 [†] | 159.0 | 2.0 | 51.18 | 890 | 1,510 | 5 |

* Based on annealed temper after brazing for temperatures of 50°C. # Manufactured in half-hard temper, all other sizes are hard drawn.
[†] EN 13348 only specifies up to 133mm diameter; 159mm will be supplied as EN1057 cleaned and capped to EN 13348.

PROJECT REFERENCES

HONG KONG

- Hong Kong Adventist Hospital
- Precious Blood Hospital
- Queen Elizabeth Hospital
- North Lantau Island Hospital
- Pamela Youde Nethersole Hospital
- Yan Chai Hospital
- St. Teresa's Hospital
- Matilda International Hospital
- Harbour Building Dental Clinic
- Centro Hospitalar
- Tai Po Maxim's Food Factory
- Uni. of Science and Technology
- Hong Kong Baptist Hospital
- St. Paul Hospital
- Hong Kong Sanatorium & Hospital
- Hong Kong Adventist Hospital
- Tin Shui Wai Hospital
- Gleneagles HK Hospital
- Hong Kong Sanitarium & Hospital

MACAU

- Hospital Conde S. Januário

CHINA

- Nanjing Ming Ji Hospital, Nanjing
- Kiang Wu Hospital, Macau

SINGAPORE

- Alexandra Khoo Teck Puat Hospital
- Tan Tock Seng Hospital
- Novena Hospital
- National University Hospital
- Farrer Park Hospital
- National Heart Hospital
- Assisi Hospital
- Yishun Community Hospital
- Singapore General Hospital
- Changi General Hospital
- St. Luke Hospital
- Life Science Centre

MALAYSIA

- Petronas Hospital, Kuala Lumpur (KL)
- Ipoh Specialist Hospital, Ipoh Perak
- Tung Shin Hospital, KL

- Hospital Cancer, Nilai Hospital Army, KL
- Hospital Terangganu Wad I.C.U., Kuala Terangganu
- Columbia Asia Medical Centres in many locations
- Hospital Jantung, KL
- Hospital Hemodialysis, Seremban
- Hospital Sultan Aminah, Johor
- Seremban Specialist Hospital, Seremban
- Hospital Tropicana, KL
- Likas Medical Centre, Sabah
- Shah Alam Hospital

INDONESIA

- Gambiran Hospital, Surabaya
- Nganjuk RSUD Hospital, Surabaya
- SOA RSUD Hospital, Surabaya
- A.W Sjahranie RSUD Hospital, Samarinda

CAMBODIA

- Maternal Hospital
- Calmette Hospital

- Sunrise Hospital
- Russian Hospital

VIETNAM

- Nam Dinh General Hospital, Nam Dinh
- Dong Da General Hospital
- Hanoi Obstetrics Hospital
- National Pediatric Hospital
- Bac Ninh General Hospital
- 221 Army Hospital
- Lang Son General Hospital
- Hoa Binh General Provincial Hospital
- Phuong Chau International Hospital
- Binh Dinh General Hospital
- Cua Dong Hospital, Vinh City
- Ha Giang General Hospital
- Bia Chay General Hospital

JORDAN

- Jabal Al Zaitoon Hospital, Zarqa
- Princess Basma Hospital,
- Irbid Italian Hospital, Amman



TECHNICAL SUPPORT

MM Kembla is renowned as one of the world's leading experts for technical support regarding copper tube and fittings. We invite hydraulic consultants, engineers, distributors and installation contractors to visit our website where we provide a comprehensive range of technical information.

KEMBLA
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INTERNATIONAL CERTIFICATION

MM Kembla manufacturing processes and quality systems are built upon 100 years of experience in manufacturing copper tube. An intensive ISO9001 certified quality control system is applied to all MM Kembla products. MM Kembla also has a variety of third party accreditations to Australian, New Zealand, British/ European and American standards.



MM Kembla's Australian manufacturing facilities at Port Kembla.

KEMBLA

Head office & factory:

MM Kembla
 Gloucester Boulevard, PO Box 21,
 Port Kembla, NSW 2505 Australia
 Phone: +612 4223 5200
 Fax: +612 4223 5235
 sales@kembla.com.au

