

Medical & Industrial Gas Pipeline Systems

CAPABILITY SHEET - MGPS TO ISO 7396-1 - ENGINEERED TO ORDER

THE SYSTEM

WHAT

THE TWO FAILURE MODES A gas pipeline can harm in exactly two ways - deliver the wrong gas (cross-connection), or stop delivering (supply failure). Almost every rule in ISO 7396-1 exists to make one of those impossible, which is why this is a monitored network with three sources, not a length of pipe.

STATUS Engineered to order and delivered turnkey; quoted across hospital and industrial gas-pipeline requirements. No specific delivered hospital installation is claimed on this sheet.

SOURCE & DISTRIBUTION

THREE SOURCES Primary + secondary + reserve per ISO 7396-1 - manifold banks with automatic changeover, or fed from an on-site PSA oxygen plant or a liquid oxygen tank and vaporiser. Duty switches to standby as pressure falls; the reserve always stands ready; line regulation holds a nominal 4 bar / 400 kPa.

DISTRIBUTION Degreased medical-grade copper to EN 13348, brazed under a continuous nitrogen purge so no internal oxide scale forms to shed later. Sized by an ISO 7396-1 diversity and simultaneous-demand flow calculation, not a nameplate.

ZONE ISOLATION Area valve service units (AVSU) isolate each zone for maintenance or fire without shutting the gas to the rest of the network - line and non-return valves per the zoning scheme.

INTEGRITY & PROOF

IDENTITY Gas-specific, non-interchangeable (gas-indexed / NIST) terminal units make it physically impossible to connect the wrong gas - then a cross-connection / anti-confusion test proves it out at every outlet in the building.

TEST & COMMISSIONING Before any outlet is used: pressure, leak, cross-connection, obstruction, particulate, purge and gas identity / purity tests, the reserve demonstrated and every alarm exercised - documented outlet by outlet and zone by zone. The commissioning battery is the deliverable, not the pipe.

ALARMS & MONITORING Master and zone alarm panels watch pressure and vacuum per zone; source-plant alarms report low, high, changeover and reserve-in-use, with volt-free contacts to the building management system.

SCOPE & ENGAGEMENT

VACUUM, AGSS & INDUSTRIAL Medical vacuum (duplex/triplex pumps + receiver + bacterial filtration) and anaesthetic gas scavenging as their own piped services. The same discipline extends to industrial gas distribution - nitrogen, oxygen, argon, compressed air and process or blast-furnace gas mixing.

SOURCING

ENGAGEMENT Send the gas schedule and floor plans to sales@neometrixgroup.com - a clause-by-clause compliance matrix to ISO 7396-1 within two working days.

PROJECTS DESK

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