

Line Ball Valve Assemblies

Description

The Pneumatech MGS Line ball valve assemblies are designed to provide local isolation of individual parts of the central gas and vacuum piping system in the hospital, clinic, or laboratory facility. Isolation may be required for installation, maintenance, or in the event of an emergency.

Valves shall operate from the fully open to the fully closed position by manual operation of a lever through 90 degrees. Valve nominal bores shall be equal to the nominal pipework size.

Valves assemblies shall incorporate a locking mechanism on the handle, which can be locked in either the open or closed position using a standard padlock with a 6mm (1/4") diameter shackle.

Materials

- Line valve assemblies include a two-piece full-bore design with brass body;
- Copper stub pipes are manufactured from medical grade copper pipe to BS EN 13348;
- Copper stub pipes shall be of sufficient length to enable brazing directly into the distribution system without the need for disassembly on site.

HTM02-01 Features

A set of white "open" and red "closed" spades are provided with each assembly, in order to provide a physical isolation and blanking of the pipeline both upstream and downstream of the valve. The connection of the copper stub pipe to the valve body shall be fixed with a drilled brass nut to enable visibility of the spade type deployed. In the event of leakage of the spade, gas is vented to atmosphere through the drilled brass nut connection.

For 15-54mm valve assemblies the gas specific NIST connection is provided as a separate assembly (one required both upstream and downstream of the valve) which is to be brazed onsite. This shall be supplied as a brass NIST connection pre-brazed onto a copper tee fitting including an internal check valve (pressure gases only) for safe release of gas pressure in the event of emergency use. Each NIST body shall include a plastic gas identification disc to enable clear identification on site for installation and maintenance purposes.

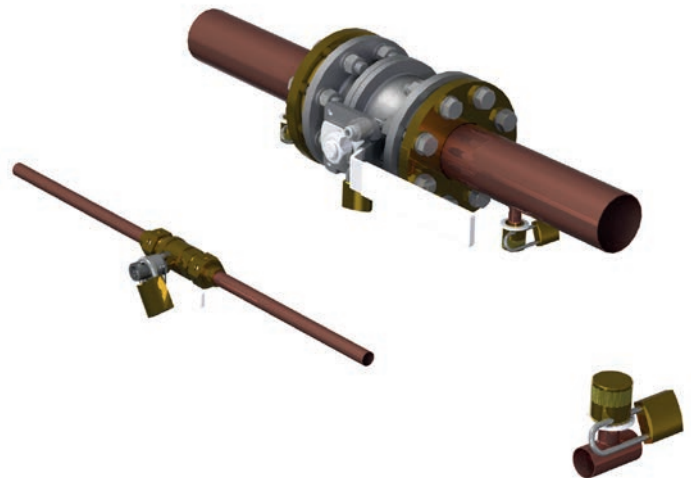
NIST blanking nuts shall be capable of being padlocked onto the NIST bodies as required by HTM02-01 clause 13.64.

Classification

'CE' marked under the Medical Devices Directive 93/42/EEC with approval from notified body no. 0088 (LRQA).

Specifications

- NIST connectors shall be manufactured to BS EN 15908.
- Lockable Line Valve complies with HTM 02-01 & BS EN ISO 7396-1 or HTM2022.



Features:

Valve

- 15 to 54mm - flat-face connectors with 'O' ring seal.
- 76 to 108mm - flanged and installed with stainless steel bolts, nuts and spring washers with 3mm Viton® sealing gaskets.
- Coded and lockable NIST connectors with brass Non-Return valve (excluding vacuum unit)

PTFE tape or any other thread sealing media is not acceptable.

Stub Assembly

- Copper stub pipes for connection to medical gas pipeline system, fully degreased for oxygen use

Services

- Oxygen
- Nitrous Oxide
- 50% Oxygen / 50% Nitrous Oxide
- Air 400 kPa (4 bar)
- Air 800 kPa (8 bar)
- Medical Vacuum
- Nitrogen
- Carbon Dioxide

Pipe Diameters

- 15mm
- 22mm
- 28mm
- 35mm
- 42mm
- 54mm
- 76mm
- 108mm

Options

- 40mm locking device and keys for valve assemblies (2022)
- Long shackle padlock and keys, individually numbered per gas type for locking the NIST connection (02-01)
- Colour coded adhesive gas tape and directional arrows
- Fluxless silver solder available for inert gas welding



Part Numbers

Pipe Size, mm	Lockable Line Valve ² HTM2022	Lockable Line Valve ^{1, 2} HTM02-01	Non-Return Valve	Lockable NIST							
				O2	N2O	O2/N2O	MA4	SA7	VAC	N2	CO2
15	8102341350	8102341360	070876	2005560	2005561	2005562	2005563	2005564	2005565	2005566	2005568
22	8102341351	8102341361	071516	2005570	2005571	2005572	2005573	2005574	2005575	2005576	2005578
28	8102341352	8102341362	071883	2005580	2005581	2005582	2005583	2005584	2005585	2005586	2005588
35	8102341353	8102341363	071615	2005590	2005591	2005592	2005593	2005594	2005595	2005596	2005598
42	8102341354	8102341364	071653	2005600	2005601	2005602	2005603	2005604	2005605	2005606	2005608
54	8102341355	8102341365	072688	2005610	2005611	2005612	2005613	2005614	2005615	2005616	2005618
76	8102341356	See note #3.	2005239	See note #3.							
108	8102341357		N/A								

Note:

1. Line Ball Valve Assemblies - HTM02-01 Style c/w through spades. Add 2 x NIST tee assemblies for HTM02-01 compliance.
2. Padlocks are sold separately.
3. For valves size 76 and 108 mm use Lockable Line Valves with NIST pre-installed at a factory, table below:

Part Numbers	Description
6000737/O2	NIST Lockable Line Ball Valve (flanged) - Oxygen, 76mm
6000737/MA	NIST Lockable Line Ball Valve (flanged) - Medical Air, 76mm
6000737/VA	NIST Lockable Line Ball Valve (flanged) - Vacuum, 76mm
6000738/VA	NIST Lockable Line Ball Valve (flanged) - Vacuum, 108mm

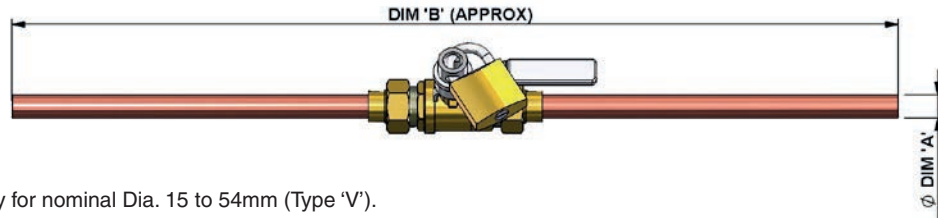
Part Numbers	Description
B1659	Padlock and keys 15mm - 108mm

In-line Non-Return Valve

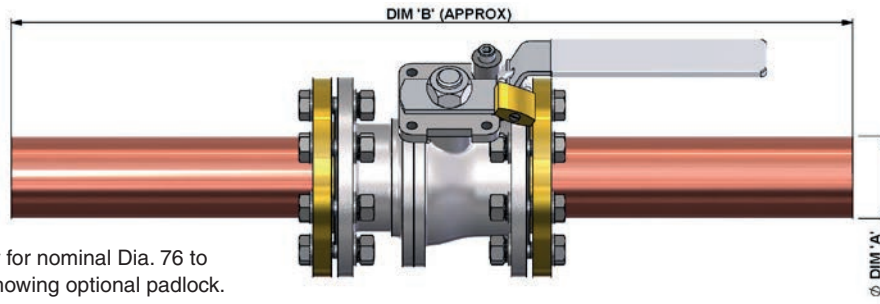
Pipe Size	Stub length 'A'	Length 'B'	O-ring Reference
Ø 15 mm	203 mm	506 mm	041265
Ø 22 mm	203 mm	517 mm	3262662
Ø 28 mm	204 mm	535 mm	B 1125
Ø 35 mm	257 mm	642 mm	009230
Ø 42 mm	257 mm	779 mm	041266
Ø 54 mm	257 mm	908 mm	B0553



Line Ball Valve - HTM2022



Typical ball valve assembly for nominal Dia. 15 to 54mm (Type 'V'). Also showing optional padlock.



Typical ball valve assembly for nominal Dia. 76 to 108mm (Type 'VF'). Also showing optional padlock.

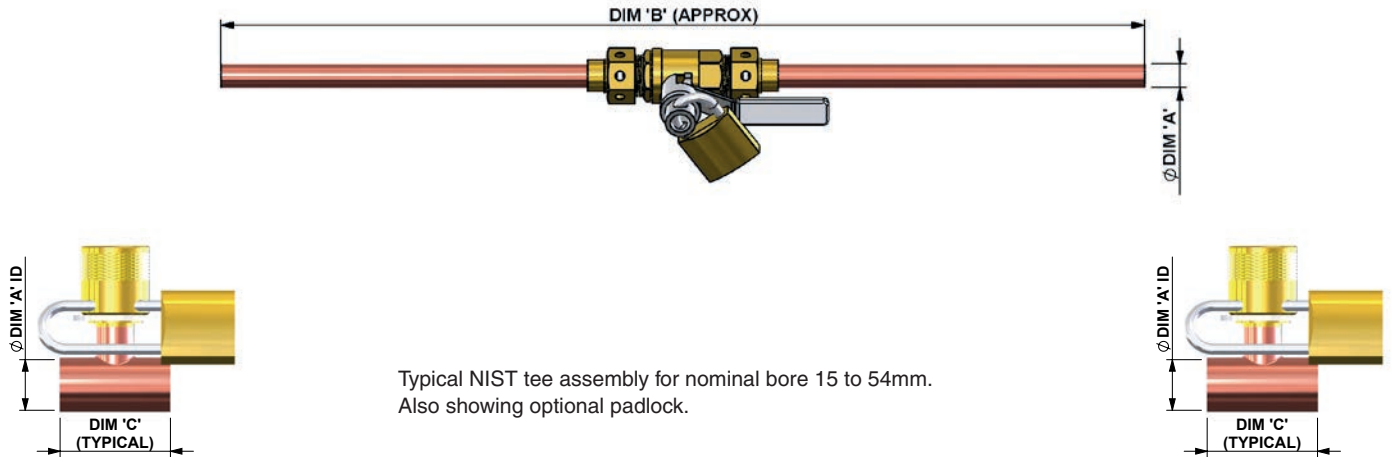
Line Ball Valve

Nominal Dia DIM 'A' (mm)	Torque (Nm)	Working Pressure (bar)	DIM 'B' (mm)
15	5.4	55	570
22	8	50	567
28	10	40	680
35	14	40	697
42	20	35	858
54	33	27	859
76	-	24	800
108	-	17	810

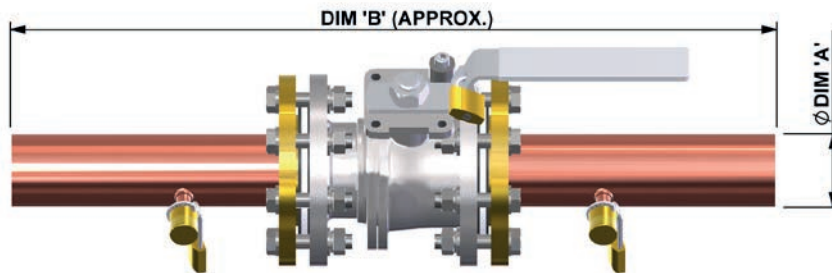


Line Ball Valve - HTM02-01

Typical ball valve assembly for nominal Dia. 15 to 54mm, NIST supplied separate.
Also showing optional padlock.



Typical NIST tee assembly for nominal bore 15 to 54mm.
Also showing optional padlock.



Typical ball valve assembly for nominal Dia. 76 to 108mm, NIST fitted. Also showing optional valve and NIST padlocks.

Nominal Dia DIM 'A' (mm)	Torque (Nm)	Working Pressure (bar)	DIM 'B' (mm)	DIM 'C' (mm)
15	5.4	55	577	38
22	8	50	574	48
28	10	40	687	56
35	14	40	705	68
42	20	35	868	73
54	33	27	872	83
76	-	16	800	-
108	-	16	810	-

Part Numbers	Description
B1659	Padlock and keys 15mm - 108mm

