

Line Ball Valve

Line Ball Valves c/w NISTS - HTM02-01

Medical Gas Line Ball Valves complete with lockable NIST connections and blanking spade shall be provided as a means of isolation on medical gas pipelines at positions specified in the medical gas pipeline system design. Line Ball Valves assemblies shall comply with NHS Health Technical Memorandum 02-01 (HTM02-01). NIST connectors shall be manufactured to BS EN ISO 18082. Valves shall operate from the fully open to the fully closed position by manual operation of a lever through 90°. Valve nominal bores shall be equal to the nominal pipework size.

All Line Ball Valves shall be cleaned for oxygen service. Smaller type V assemblies (15 to 54 mm inclusive) shall have flat-face connectors with 'O' ring seals. The larger VF type (76 to 108 mm inclusive) shall be flanged and installed with stainless steel bolts, nuts and spring washers with 3 mm Viton® sealing gaskets. PTFE tape or any other thread sealing media is not acceptable.

Each Medical Gas Line Ball Valve assembly shall terminate in copper stub pipes to enable brazing directly into the distribution system using the flux less brazing technique. Valve assemblies shall incorporate a sliding lock mechanism on the handle, which can be locked in either the open or closed position using a standard padlock with a 6 mm (1/4") diameter shackle. Padlocks shall be available as an optional item.

Each valve shall be provided with a set of "through" and "blinking" spades; and shall be coloured white and red respectively, 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. The spade shall be visible through the drilled nut when deployed. In the event of leakage of the through or blanking spade, gas shall also vent to atmosphere through the drilled brass nut connection.

NIST Assemblies

Each NIST shall have a gas ID on the body to enable clear identification on site for installation and maintenance.

NIST blanking nuts shall be capable of being padlocked onto the NIST bodies as required by HTM02-01 clause 13.64. Long shackle padlocks, individually numbered per gas type shall be available as an optional item for locking the NIST connection.

Materials

Medical Gas Line Ball Valve assemblies shall be constructed in a two-piece full-bore design with brass body, Teflon® ball seals, stem packing seal, stem 'O' ring seal and a hard-chrome plated brass ball. Valves shall be designed to have a tight shut-off and blow out proof stem for protection against pressure surges. Copper stub pipes shall be manufactured from medical grade copper pipe to BS EN 13348:2001. Copper stub pipes shall be of sufficient length to enable brazing directly into the distribution system without the need for disassembly on site.

Testing

All ball valve assemblies shall be pressure tested for valve tightness and leakage prior to packing and shipping.

Part Numbers

HTM02-01 Type V Valve Assemblies

Description	Size	Part No
Line Ball Valve assembly with NIST, O ₂	15 mm	4233401546
	22 mm	4233401513
	28 mm	4233401529
	35 mm	4233401572
	42 mm	4233401590
	54 mm	4233401608

Description	Size	Part No
Line Ball Valve assembly with NIST, N ₂ O	15 mm	4233401547
	22 mm	4233401514
	28 mm	4233401530
	35 mm	4233401573
	42 mm	4233401591
	54 mm	4233401609

Description	Size	Part No
Line Ball Valve assembly with NIST, N ₂ O/O ₂	15 mm	4233401548
	22 mm	4233401515
	28 mm	4233401531
	35 mm	4233401574
	42 mm	4233401592
	54 mm	4233401610

Description	Size	Part No
Line Ball Valve assembly with NIST, MA	15 mm	4233401549
	22 mm	4233401516
	28 mm	4233401532
	35 mm	4233401575
	42 mm	4233401593
	54 mm	4233401611

Description	Size	Part No
Line Ball Valve assembly with NIST, SA	15 mm	4233401550
	22 mm	4233401517
	28 mm	4233401533
	35 mm	4233401576
	42 mm	4233401594
	54 mm	4233401612

Description	Size	Part No
Line Ball Valve assembly with NIST, VAC	15 mm	4233401551
	22 mm	4233401518
	28 mm	4233401534
	35 mm	4233401577
	42 mm	4233401595
	54 mm	4233401613

Description	Size	Part No
Line Ball Valve assembly with NIST, CO ₂	15 mm	4233401552
	22 mm	4233401519
	28 mm	4233401535
	35 mm	4233401578
	42 mm	4233401596
	54 mm	4233401614

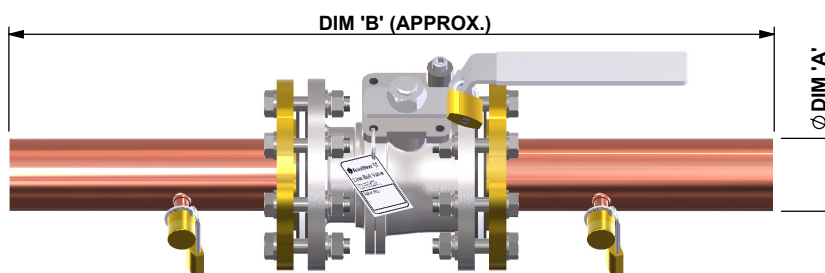
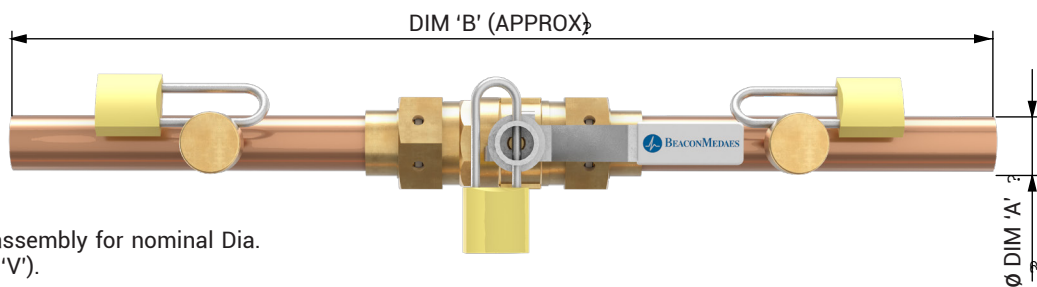
Description	Size	Part No
Line Ball Valve assembly with NIST, N ₂	15 mm	4233401568
	22 mm	4233401520
	28 mm	4233401566
	35 mm	4233401579
	42 mm	4233401597
	54 mm	4233401615

HTM02-01 Type VF Valve Assemblies c/w NISTs

Description	Size	Part No
Oxygen line valve assembly, flanged type, complete with NISTs	76 mm	4233402013
Medical air line valve assembly complete with NISTs	76 mm	4233402014
Surgical air line valve assembly complete with NISTs	76 mm	4233402015
Vacuum line valve assembly complete with NISTs	76 mm	4233402016
Vacuum line valve assembly complete with NISTs	108 mm	4233402017

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

Also showing optional padlock.



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

Padlocks

Description	Gas Type	Part No
Long Shackle Padlock for NIST - No. 10	O ₂	4233402018
Long Shackle Padlock for NIST - No. 20	N ₂ O	4233402019
Long Shackle Padlock for NIST - No. 30	N ₂ O/O ₂ Mix	4233402020
Long Shackle Padlock for NIST - No. 40	Med Air	4233402021
Long Shackle Padlock for NIST - No. 50	Surg Air	4233402022
Long Shackle Padlock for NIST - No. 60	VAC	4233402023
Long Shackle Padlock for NIST - No. 80	N ₂	4233402024
Long Shackle Padlock for NIST - No. 90	CO ₂	4233402025

Description	Size	Part No
Padlock for locking of Line Ball Valve handles	All	4233402026

Performance and Dimensions

Nominal Dia DIM 'A' (mm)	Working Pressure (bar)	DIM 'B' (mm)
15	18	500
22	18	500
28	18	500
35	18	750
42	18	750
54	18	750
76	18	1000
108	18	1000

CE Marking

The standard range of BeaconMedaes Line Ball Valves are 'CE' marked under the Medical Devices Directive 93/42/EEC with approval from a notified body (more info available on request). Under this directive, the specified products are classified as Class IIa Medical Devices.

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Line Ball Valves - HTM2022

Medical Gas Line Ball Valves shall be provided as a means of isolation on medical gas pipelines at positions specified in the medical gas pipeline system design. Line Ball Valves assemblies shall comply with NHS Health Technical Memorandum No. 2022 (HTM2022) and NHS Model Engineering Specification C11. Valves shall operate from the fully open to the fully closed position by manual operation of a lever through 90°. Valve nominal bores shall be equal to the nominal pipework size.

All Line Ball Valves shall be cleaned for oxygen service. Smaller type V assemblies (15 to 54 mm inclusive) shall have flat-face connectors with 'O' ring seal. The larger VF type (76 to 108 mm inclusive) shall be flanged and installed with stainless steel bolts, nuts and spring washers with 3 mm Viton® sealing gaskets. PTFE tape or any other thread sealing media is not acceptable.

Each Medical Gas Line Ball Valve assembly shall terminate in copper stub pipes to enable brazing direct into the distribution system using the flux less brazing technique. Valves assemblies shall incorporate a sliding lock mechanism on the handle, which can be locked in either the open or closed position using a standard padlock with a 6 mm (1/4") diameter shackle.

Each valve assembly shall be supplied with a plastic identification tag to assist the on-site management of padlock keys.

Materials

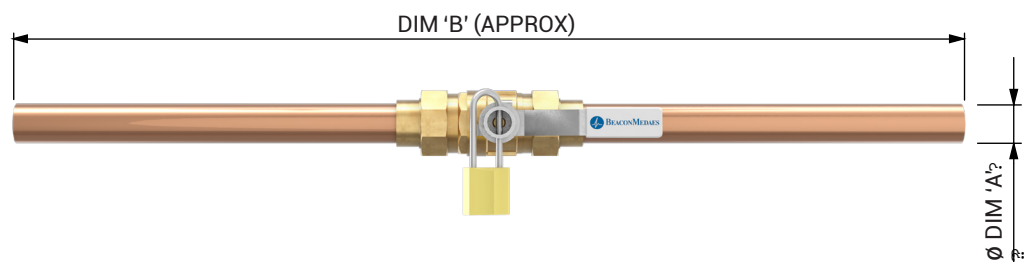
Medical Gas Line Ball Valve assemblies shall be constructed in a two-piece full-bore design with brass body, Teflon® ball seals, stem packing seal, stem 'O' ring seal and a hard-chrome plated brass ball. Valves shall be designed to have a tight shut-off and blow out proof stem for protection against pressure surges. Copper stub pipes shall be manufactured from medical grade copper pipe to BS EN 13348:2001. Copper stub pipes shall be of sufficient length to enable brazing directly into the distribution system without the need for disassembly on site.

Testing

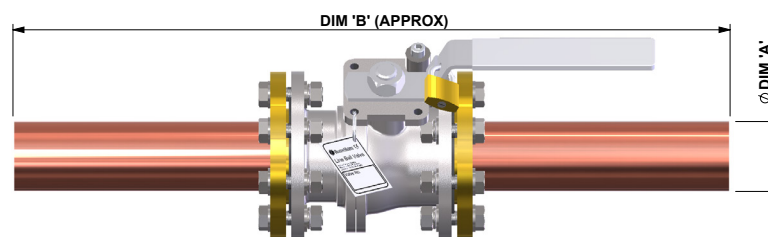
All ball valve assemblies shall be pressure tested for valve tightness and leakage prior to packing and shipping.

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

Also showing optional padlock.



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



Part Numbers

Description	Size	Part No
Line valve assembly with stub pipes	15 mm	4233401768
	22 mm	4233401769
	28 mm	4233401770
	35 mm	4233401771
	42 mm	4233401772
Line valve - flanged type with stub pipes	54 mm	4233401782
	76 mm	4233402036
	108 mm	4233402037

Description	Size	Part No
Padlock for locking of Line Ball Valve handles	All	4233402026

Performance and Dimensions

Nominal Dia DIM 'A' (mm)	Working Pressure (bar)	DIM 'B' (mm)
15	18	570
22	18	567
28	18	680
35	18	697
42	18	858
54	18	859
76	18	800
108	18	810

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