

MANIFOLD INLET HEADER EXTENSIONS

When auto change-over manifolds require more than one cylinder on each bank, a modular inlet header system is used to extend the gas supply storage capacity. To change a 1x1 manifold to a 2x2 manifold you require; manifold arms (2 off), extension headers (2 off), corner headers (2 off) and cylinder leads (2 off). To extend a 2x2, or larger manifold, by one cylinder on each bank you require; extension headers (2 off) and cylinder leads (2 off). This modular inlet header system, together with the associated individual component part numbers is detailed in the following pages.

Example

To extend a 1x1 manifold to a 3x3 manifold you need; manifold arms (2 off), extension headers (4 off), corner headers (2 off) and cylinder leads (4 off).
To extend a 2x2 manifold to a 4x4 manifold you need; extension headers (4 off) and cylinder leads (4 off).

The method of ordering a manifold by the specification method listed in the individual manifold sheets, (eg. M120-800-OXY-3x3-01), is an "all inclusive" system. There is no need to order all the components, including inlet header components as individual items when using this ordering method.

HEADER NON-RETURN VALVES (NRV)

Both the header extensions and header corners have an internal non-return valves fitted inside the cylinder lead connection, (AS stipulated in Australian Standards). These are designed to stop the rapid decanting of cylinders if there is; a cylinder lead failure, an empty cylinder is accidentally connected to a full cylinder bank, or if a cylinder is removed without first turning off the other cylinders in the bank. The non-return valves are not designed to create a completely leak tight seal, (they will pass a small flow in the reverse direction). If some individual cylinders are to be removed from a working manifold, blanking plugs must be fitted to the headers from which the cylinders have been removed.

INDUSTRIAL FUEL AND NON-FUEL HEADERS

For industrial gas systems, the header threaded connections are 3/8" BSP right handed for non-fuel gases, and 3/8" BSP left handed for fuel gases. This eliminates the possibility of mixing fuel and non-fuel gas cylinders on the same manifold. When using the modular inlet header system for industrial gases, the cylinder centre distance spacing is 300mm for all gases, (except acetylene which is 425mm). Other centre distances can be made on request.

MEDICAL METRIC VERSUS IMPERIAL GAS SPECIFIC HEADERS

In medical systems, gas specific header connections are used to reduce the risk accidentally connecting an incorrect gas cylinder to the pipeline system. The 1998 revision of AS2896 (Medical Gas Systems) specified, for the first time, a set of metric connections for these header connections. The Standard has a note that states "new manifolds supplied from January 2007 should comply with these metric connections". Previous to this, BOC/CIG/Cigweld used a series of imperial gas specific threaded header connections. To assist in identifying both header connections systems, the imperial header connections are manufactured from a square section brass block, while the metric header connections are manufactured from a hexagonal section brass block. Thread details of both types of gas specific connections are list below.

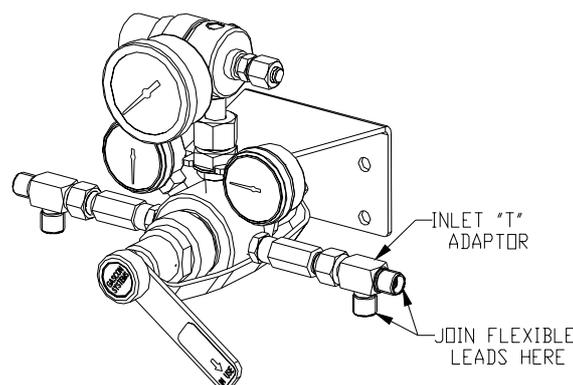
Working Gas	Imperial Header Thread	Metric Header Thread
Oxygen	3/8" BSP RH	M18x1.5
Air	1/2" BSP RH	M20x1.5
Nitrous Oxide	0.86"-14 whit	M16x1.5
Carbon Dioxide	5/8"-18UN	M26x1.5
Carbogen™	9/16"-18UN	M28x1.5
Entonox™	N/A	M24x1.5

When using the modular inlet header system for medical gases, the cylinder centre distance spacing is 300mm for all gases. Other centre distances can be made on request.

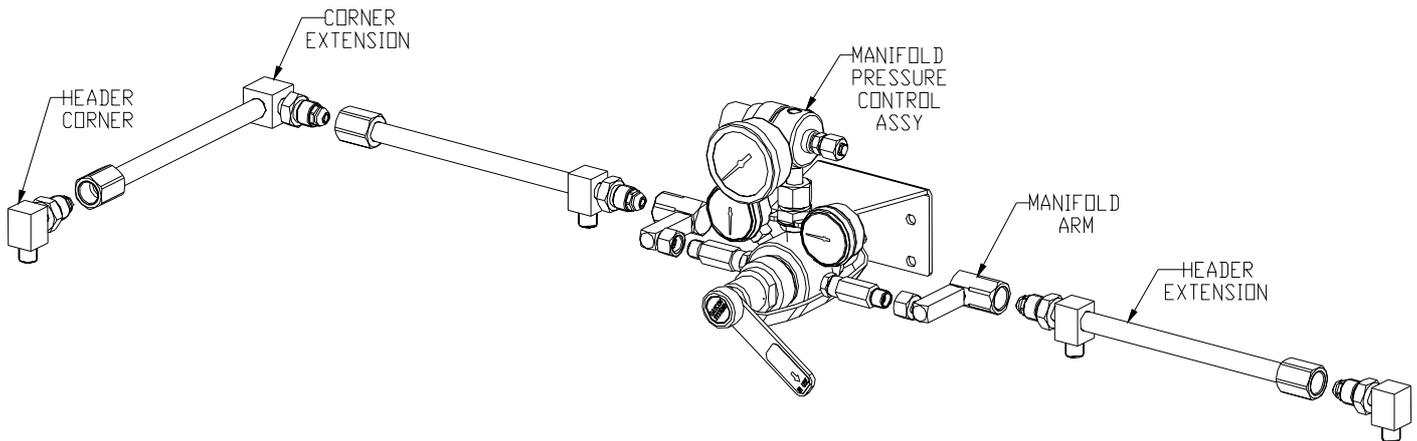
LOW COST 2X2 INLET EXTENSION KIT

In situations where the user requires a 2x2 auto change-over manifold there is a lower cost option than using the standard modular header system. There less parts than a modular 2x2 system, and it requires less installation work since there is no requirement to secure extension header brackets to the mounting surface. There are some limitations to this option:

- it can only be used with stainless steel braided or stainless steel convoluted leads (ie. not copper pigtails),
- if the systems requires future extension to the storage capacity, (greater than a 2x2), then it has to be fully replaced with the modular system.



MODULAR INLET HEADER EXTENSION COMPONENTS



	MANIFOLD ARM	HEADER EXTENSION	HEADER CORNER	CORNER EXTENSION
INDUSTRIAL GASES				
Non Fuel Gases	MA10	360024	360200	360110
Acetylene	MA20	360025	360201	360106
Fuel Gases (other than acetylene)	MA20	G0519	360201	360106
MEDICAL GASES (imperial system)				
Oxygen	MA10	519023	360200	519024
Air	MA10	360035	360250	519024
Nitrous Oxide	MA30	518844	518841	518847
Carbon Dioxide	MA30	518845	518842	518847
Carbogen™	MA30	518846	518843	518847
Entonox™	N/A	N/A	N/A	N/A
MEDICAL GASES (metric system)				
Oxygen	MA10	G0525-OXY	G0526-OXY	519024
Air	MA10	G0525-AIR	G0526-AIR	519024
Nitrous Oxide	MA30	G0525-N2O	G0526-N2O	518847
Carbon Dioxide	MA30	G0525-CO2	G0526-CO2	518847
Carbogen™	MA30	G0525-CARB	G0526-CARB	518847
Entonox™	MA30	G0525-ENT	G0526-ENT	518847

The header extension, header corner and corner extensions kit are the same for auto change-over manifold and manual manifolds except for the mounting brackets. The auto change-over uses a longer bracket (P/N G1280), while the manual manifolds use a shorter bracket (P/N G1428).