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## PRODUCT SPECIFICATION – AIR-LINE XTRA SYSTEM

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### AIR-LINE XTRA PIPES

In accordance with the dimensional requirements of DIN 8062, and ISO 161/1.  
Pressure rating PN 12.5. Third Party approved by SAFED.

### AIR-LINE XTRA FITTINGS

In accordance with the dimensional requirements of DIN 8063, and ISO 727.  
Pressure rating PN 12.5. Third Party approved by SAFED.

### AIR-LINE XTRA BALL VALVES

These shall be true union design, end load resistant and have full pressure and shock resistant anti blow out device

Hydrostatic Shell Test 1.5 x Maximum Working Pressure

### PRESSURE RATING

PN12.5 at 20°C. (Manual & Actuated)

### SEATS AND SEALS

Seats shall be of PTFE material.

Seals shall be of standard size O ring type for ease of replacement and shall be available in Nitrile material.

### END CONNECTIONS

Shall be plain socket ends.

### ACTUATION

**Electric Actuation.** The following voltage options shall be available – 240v AC 50 Hz, 110v AC 50 Hz, 24v AC 50 Hz. The actuator shall be to classification IP54/DIN 40050. A clamp bracket with manual over-ride and integral threaded inserts shall be used to provide a secure, corrosion free platform upon which to mount the actuator. The following feature shall be available:

#### Limit Switches

2 standard with option of 2 extra

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**Pneumatic Actuation** The actuator shall provide a 90° rotation in a time of 1-4 seconds. Preloaded spring cartridges will be used for the Fail Safe Closed and Fail Safe Open versions. A double acting version shall also be available.

The air supply ports to be 1/8" BSP female with interface plate to NAMUR standard. All drillings for accessories are to NAMUR standard. A clamp bracket with manual override and integral threaded inserts shall be used to provide a secure corrosion free platform upon which to mount the actuator.

#### **Options –**

The following features shall be available:

Extra limit switches  
Pilot control valves – 240v AC, 24v AC, 24v DC

### **Air-LINE XTRA DIAPHRAGM VALVES**

These shall be equipped with a maintenance free hand wheel actuator with spindle extension to indicate the position of the valve open or closed. The body retaining bolts will be fixed from the underside, thus the bonnet will have a crevice free outer surface to prevent accumulation of debris or the risk of corrosion of exposed steel bolts from chemical spillage.

Valves must have been hydrostatically pressure tested to the requirements of BS 5392 Part 1 1976, BS 5156, ISO 7508 and DIN 3230 Part 3 Leak Rate One.

#### **PRESSURE RATING**

PN10 at 20°C (Manual)  
PN7 at 20°C (Actuated)

#### **DIAPHRAGM TYPE**

Nitrile.

#### **END CONNECTION**

Plain spigot ends.

#### **ACTUATION**

Shall be diaphragm type pneumatic actuator, with body of glass reinforce polypropylene construction. The actuator should be available as Spring Return – Fail Safe Closed or Fail Safe Open and Double Acting. Connection ports shall be stainless steel to prevent the risk of corrosion and of 1/4" BSP thread. The actuator retaining bolts will be fixed from the underside to prevent the risk of corrosion from chemical spillage.

A comprehensive range of accessories shall be available as follows:

Solenoid pilot control valves (240v AC, 110v AC, 24v AC, 24v DC, 12v DC)  
Switch box complete with 2 extra limit switches  
Stroke Limiter  
Position indicator  
Manual Override  
Positioner, and mounting  
Base mounting plate

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## **QUALITY**

Pipes, fittings and valves shall be manufactured in an environment which operates a Quality Assure System assessed to BS ISO 9002, encompassing all aspects of Design, Development, Manufacture, Inspection and Testing.

## **COLOUR/MATERIAL**

Pipes, fittings and valves shall be manufactured from light blue Air-Line Xtra material. All materials shall conform to the toxicological requirements of the British Plastics Federation/British Industrial Biological Research Association Code of Practise for Food Usage 45/5, and EC requirements for plastic materials in contact with food stuffs.

Materials shall have a flammability rating in accordance with DIN 4102 – B2.

## **MATCHED SYSTEM**

The integrity of the Air-Line Xtra pipework system and the manufacturer's warranties may be compromised if materials from various manufacturers are installed as one system. Therefore, pipes, fittings, valves and solvent cements from one manufacturer must be used.

## **DESIGN LIFE**

Pipes, fittings and valves shall be designed to operate continuously for 30 years at their maximum rated pressure at a working temperature of 20°C.

## **DESIGN & INSTALLATION SPECIFICATION**

The installation shall be carried out by competent persons. The contractor shall be required to provide technical documentation relating to the Air-Line Xtra pipework Design and Installation procedures, and will have been trained with regards to the correct procedure for solvent cement jointing.

### **Specific attention shall be paid to the following:**

Threaded connections  
Branch connections  
Flanged joints  
Instrumentation connections  
Brackets and supports  
Thermal Movement, Pipe Routing and Anchor Point construction  
Air-Line Xtra to Metal connections  
Pressure/Temperature relationship  
Compressor oil suitability

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