



# HYDRAULIC BALL VALVES

## Literature





**Figure 1 MKH Type Quarter Turn High Pressure Ball Valve**

**Introduction:**

High pressure ball valves are quarter-turn ball valves that use a floating ball in controlling flow. The valve is open when the ball's holes are in line with the flow, and closed when pivoted at 90-degrees using the valve handle. Ball valves are durable and retain their quality after many cycles.

Our range of hydraulic ball valves has a working pressure of up to 700 Bar and varies sizes. Hydraulic high pressure ball valves are usually made from steel and stainless steel materials. The common connection for high pressure ball valves are threaded type or compression type.

**Specifications:**

High pressure ball valves are hydraulic ball valves that are used to control, restrict or shut off liquids and gases in the system line. It is a quarter-turn ball valve which uses a floating ball to control the flow. The flow will go through when the hollow ball is in line with it and close when pivoted the handle by 90° rotation.

High pressure ball valves are commonly used in construction and agricultural, fire protection, marine & offshore, oil & gas, and process industries. Due to its difficulty to clean, they are not recommended for the purpose of food and beverages, and pharmaceutical.

**Material:**

The available material for high pressure ball valves is Steel (112A/212A/192A) and Stainless Steel (442A). The material combination code is representing the material for body and adapters, ball and stem, ball seat, and sealing on stem and adapters respectively. For more information about material details, please refer to the MHA Catalogue.

It is important to know the type of applications, and working temperature to determine the material for ball valve parts such as the ball seat, and seal for the stem and adapter. For Steel material, the temperature range is from -20°C to 100°C. For Stainless Steel material, the temperature range is from -30°C to 100°C.

**Size Range & Pressure Rating:**

The available sizes for high pressure ball valves are ranged from 1/8" to 2 1/2". There are two different types of ball valve body design. For sizes ranging from 1/8" to 1 1/2", the ball valves are designed in BKH type (square body). While for sizes ranging from 1 1/4" to 2 1/2", the ball valves are designed in MKHP type (round or hexagon body). Reduced bore type ball valves are also available for certain sizes.

For BKH type, the maximum working pressure range is from 315 Bars to 500 Bars, depending on the ball valve sizes. For MKHP type, the maximum working pressure is 420 Bars.



**Figure 2 BKH Type Quarter Turn High Pressure Ball Valve**

**Connection Type:**

The common available connection for high pressure ball valves is NPT (National Pipe Thread) and BSPP (British Standard Pipe Parallel). For NPT thread, it is according to ANSI B1.20.1 while for BSPP thread, it is according to DIN ISO 228.

There are other connection types that are available upon request which are Compression type (DIN 2353/ISO 8434-1), SAE J514 female thread, ISO 7/1 Rc female thread, and ISO 8434-3 ORFS male thread.

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