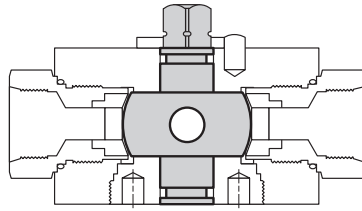
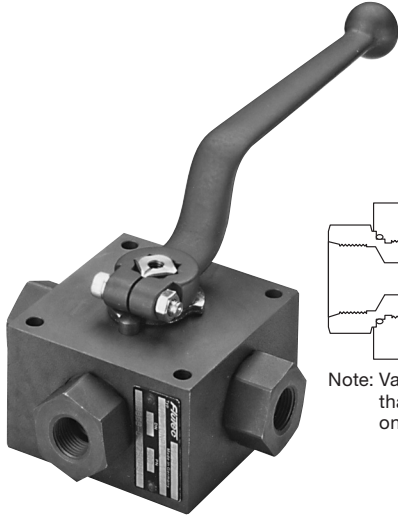


# HIGH PRESSURE BALL VALVES

## KH3 & KH4 Series

### Multiway Ball Valves



Note: Valves use a trunion design, rather than the "floating ball" design used on all other ball valves.

### Specifications

- Sizes 1/4" to 3/4"
- 2 Positions, 90° Switching Standard
- Carbon Steel Housing
- L and T Ball Drilling: KH3
- L, T and X Ball Drilling: KH4
- NPT or SAE O-Ring Connections
- Ball Seals: Polyacetal (*standard*)
- O-Rings: Fluoroelastomer (*FPM*) (*standard*)
- Operating Pressure: to 7250 psi depending on valve size and seal materials selected
- Temperature Range: 14° to 176°F with standard materials (*1114*) up to maximum pressure rating. Extended temperature range -40° to 392°F on request with special materials and reduced pressure rating (*see page A1-3*).

### Model Code

**KH3 - 12 NPT - L - 1 1 1 4 - 12X - A - L**

#### Housing Type

- KH3 = Three-Way
- KH4 = Four-Way

#### Nominal Sizes

Nom Size	SAE Tube	Thread	NPT Pipe Size	NPT Pipe OD
06	-4	7/16-20 UNF	1/4"	0.540"
10	-6	9/16-18 UNF	3/8"	0.675"
12	-8	3/4-16 UNF	1/2"	0.840"
20	-12	1-1/16-12 UN	3/4"	1.050"

#### Connection Type

- NPT = ANSI/ASME 1.20.1 Taper Pipe Thread
- SAE = SAEJ1926 Ports with ISO 725 Threads and O-Ring Sealing

#### Ball Drilling

- L = standard for KH3
- T = (optional)
- X = standard for KH4

#### Body Material

- 1 = Carbon Steel

#### Spindle and Ball Material

- 1 = Carbon Steel (*ball is chrome plated, spindle is zinc plated*)
- 3 = **Stainless Steel**

#### Ball Seal Material

- 1 = Polyacetal (*standard*)
- 3 = **PTFE (1500 psi max)**

#### O-Ring Material

- 2 = **NBR (Buna N)**
- 4 = **FPM (Fluoroelastomer) (standard)**

#### Handle Codes

- 09x = Without Handle
- 12x = Offset Aluminum (*standard*)

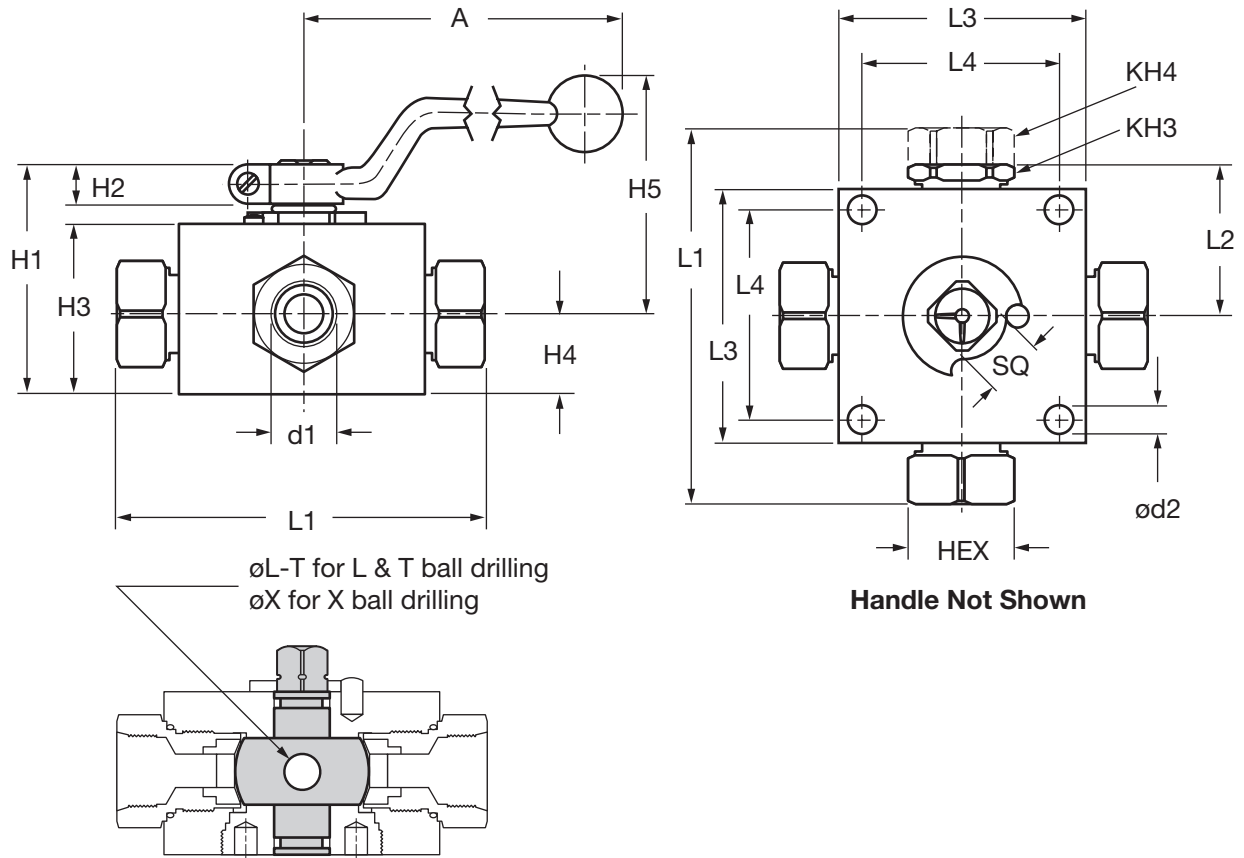
#### Housing Surface Finish

- A = Zinc plated (*standard for all carbon steel valves*)

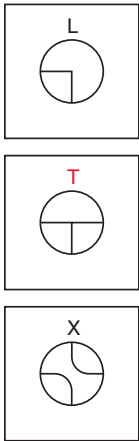
#### Locking Device Option

- L = Locking Device (*see page A1-22 to order locking device separately*)

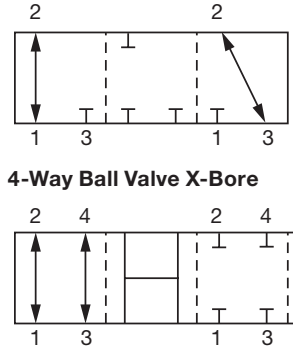
## Dimensions



## Ball Drilling



## Function Diagrams



## 90° Switch



## 90° Switch



Notes: These are positive overlap valves. At approximately 45° rotation, flow will be blocked to all ports.  
For "T" function diagram, contact HYDAC.

Model	d1	Max. psi*	A	L1	L2	L3	L4	H1	H2	H3	H4	H5	ød2	SQ	HEX	øL-T	øX	Wt.
KH...06SAE	7/16"-20 UNF	7250	6.42	3.94	1.67	2.76	2.17	2.28	0.51	1.57	0.87	2.48	0.26	0.47	0.95	0.20	0.18	3.5
KH...06NPT	1/4" NPT		(163)	(100)	(42.5)	(70)	(55)	(58)	(13)	(40)	(22)	(63)	(6.5)	(12)	(24)	(5)	(4.5)	(1.6)
KH...10SAE	9/16"-18 UNF	7250	7.20	4.53	1.81	3.15	2.56	2.72	0.55	1.97	1.06	2.95	0.26	0.55	1.18	0.35	0.24	5.3
KH...10NPT	3/8" NPT		(183)	(115)	(46)	(80)	(65)	(69)	(14)	(50)	(27)	(75)	(6.5)	(14)	(30)	(9)	(6)	(2.4)
KH...12SAE	3/4"-16 UNF	5800	7.20	5.32	2.20	3.94	3.15	3.11	0.55	2.36	1.22	3.46	0.35	0.55	1.42	0.47	0.39	9.5
KH...12NPT	1/2" NPT		(183)	(135)	(56)	(100)	(80)	(79)	(14)	(60)	(31)	(88)	(9)	(14)	(36)	(12)	(10)	(4.3)
KH...20SAE	1 1/16"-12 UN	4500	8.94	5.67	2.26	3.94	3.35	3.68	0.61	2.87	1.42	3.82	0.35	0.67	1.81	0.71	0.55	13.2
KH...20NPT	3/4" NPT		(227)	(144)	(57.5)	(100)	(85)	(93.5)	(15.5)	(73)	(36)	(97)	(9)	(17)	(46)	(18)	(14)	(6.0)

\*Dependent upon valve and seal materials selected.

Notes:

1. Dimensions are in inches (mm) and lbs (kg)

2. Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.