



1. APPLICATION

May be used for flammable fluids (LNG/LPG) service, hydraulic oil, fuel oil, lubricating oil, inert gas, fresh water, sea water, sanitary, starting/control air, service air, brine, CO2, steam and refrigerants..

Two way ball valve (Fig 1.1) has 2 ports, an inlet and an outlet, and a ball with a bore in it. They are operated by a manual hand lever to turn the ball 90 degrees, so that is called quarter turn ball valves or shut off valves.

They are one of the most common valves due to their simple operation, reliability, long service life, and wide range

Various connection styles are available (threaded, flanged, etc.) for easy application installation. A threaded ball valve is the most common, as they are.

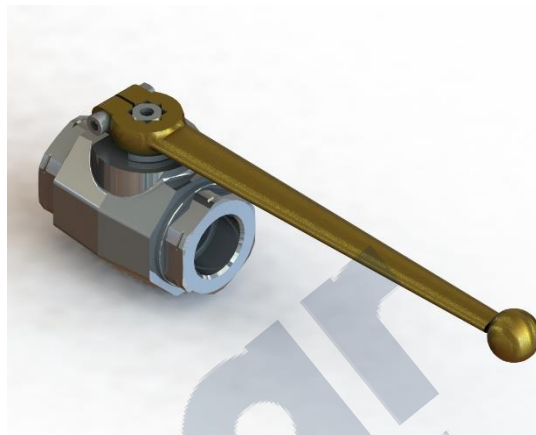


Figure 1.1

2. INSTALLATION

During installation 2 -way ball valve must fastening as seen as project drawing which given by ALMAR.

Be sure the 2 -way ball valve is not damaged.

End user is responsible for applying all safety precautions.

Before tighten 2 way ball valve use loctite and flaxen or PTFE-tape for tightness.

For sample of installed 2 way ball valve see fig2.1. (Master valve).



Figure 2.1



3. MECHANICAL PROPERTIES

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, ISO 7/1 Rc Female thread, ISO 8434-3 ORFS Male thread, others on request. Some of the material properties given at table 3.1 below.

METARIALS	BODY	STEEL/CHROME	T _{min} / T _{max} -20 °C / 100 °C
	BALL	STEEL	
	STEAM	STEEL	
	BALL SEATS	POM	
	O-RINGS	NBR	

Table 3.1 Metarials

AL20-40021/ AL20-40022/ AL20-40023 has female thread on DIN ISO 228 standart. For connection type and more details of steel valves please see table 3.2 (e.g. AL20-40021S), for chrome (stainless) valves please see table 3.2(e.g. AL20-40021C).

		GENERAL DIMENSIONS (DIN ISO 228 FEMALE THREAD)						
		Product No.	Typ.	LW	L	i	D	WEIGHT(KG)
		AL20-40021S	DN32	32	111	22	G1 1/4	3.47
		AL20-40022S	DN40	38	130	24	G1 1/2	5.67
		AL20-40023S	DN50	48	140	26	G2	8.14
		GENERAL DIMENSIONS (DIN ISO 228 FEMALE THREAD)						
		Product No.	Typ.	LW	L	i	D	WEIGHT(KG)
		AL20-40021C	DN32	32	111	22	G1 1/4	3.47
		AL20-40022C	DN40	38	130	24	G1 1/2	5.67
		AL20-40023C	DN50	48	140	26	G2	8.14

Table 3.2 Thread Dimensions

4. MAINTANACE AND CERTIFICATIONS

If any 2 way ball valve is found to be in a poor condition, (rusty, damaged, etc.), please contact recognised service company.

Full maintenance should be performed by persons specially trained in the maintenance of such systems, e.g. manufacturer or recognised service company

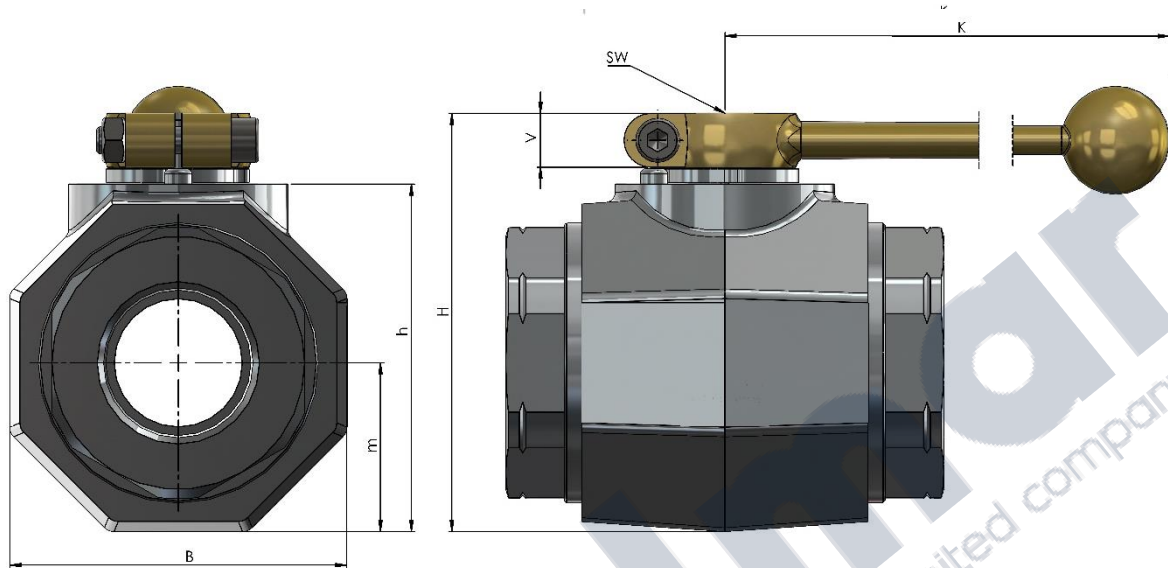
When it's necessary the following certificates can be issued :

- a. TYPE APPROVAL CERTIFICATE



5. DIMENSIONS AND TECHNICAL DRAWINGS

Dimensions are given at Table.5.1 below please see tables for each product.



GENERAL DIMENSIONS (mm)										
Product No.	Typ.	I	B	H	h	M	V	SW	K	H1
AL20-40021	DN32	80	81	107	86	40.5	16.5	17	320	-
AL20-40022	DN40	85	100	124	103	50	16.5	17	320	-
AL20-40023	DN50	100	118	138	117	59	16.5	17	320	-

Table 5.1 Body Dimensions of Valve