



1. APPLICATION

Designed according to dissimilar fluids and a specific pressure against all the opposition, the valves that provide controlled discharge of the fluid (liquid, gas e.g) when the design pressure rises above a certain value are called safety valve or.

When the pressure before safety / relief valves reaches the set pressure the valve commences to lift I.e. open a little at first to discharge a small amount of medium. If the pressure continues to rise it will open further and more medium is discharged. At a maximum Pressure increase of %10 (%5), the stroke required for the mass flow to be discharged is reached.

When the pressure drops to %10 (gases / vapour's and gases) or %20 (incompressible medium / liquids) below the set pressure, the valve closes and no fluid escapes any more.

2. INSTALLATION

In and outlets are provided with protective caps (Fig 2.1). These are to be removed before the installation. The valves may not be thrown.

Install valve to the manifold according to your unique Project drawings which given by ALMAR.

The whole system has to be rinsed before installation of the valve.If the plant should not be sufficiently purified or in the case of an inappropriate assembly the valve may be leaky already upon first response. The assembly of the threaded valves should be carried through without using hemp or PTFE-tape. Metal sealing rings are to be proffered.

The safety / relief valves have to be fitted vertically with the spindle in an upright position. For a perfect function in the long run it is also necessary to install the valve without tension into the plant.

Two different types of safety valves are available. Fasten safety relief valve to the manifold(AL20-40055). For best result please see your project drawings which given by ALMAR.

3. TECHNICAL PROPERTIES

Screwed connection :DIN ISO 228 / ASME B1.20.1

Temperature ranges : -10°C to 280°C
Soft seated.



Figure 1.1

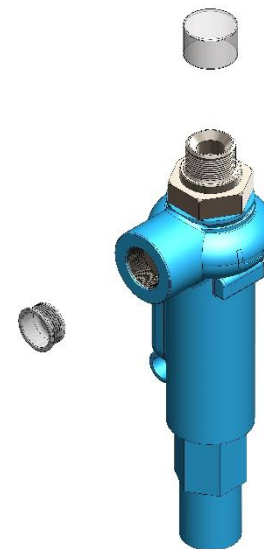


Figure 2.1



4. MAINTANANCE

NI-Safety Relief valves are designed regarding design and construction in such a way that an optimum of quality is achieved, and that they are easy to service. A minimum of care and maintenance is the result when our fittings are applied. For the replacement of spare-parts it is also recommend have this work executed only in an authorized workshop.

Corrosion protection: NI safety / relief valves that are not corrosion protected are provided with a protective paint cover in the plant of the manufacturer. In a most environment it may become necessary to apply later additional corrosion protection layers. In this case it must be seen to if that the function of movable components.

Test intervals

The minimum test intervals for safety / relief valves especially activated by steam are four weeks. Test intervals for other applications must be determined by the use in compliance with the operation conditions.

Tests and examinations are to be executed at least during each internal or external examination of the pertaining pressure device.

FAULT	POSSIBLE CAUSES	REMEDY
Safety / relief valve doesn't response	Flange and threaded protection caps have not been removed	remove flange and threaded protection caps
	Spindle blocking screw not removed r	remove spindle blocking screw
	Bellow design faulty, no longer compensates counter pressure	Replace safety / relief valve
	Viscous /sticky / hardening medium	Regular brief venting or heating / cooling of the safety / relief valve
	Icing incurred when blowing out	Use a heating jacket
	The setting pressure is too high / too low	Either replace or readjust safety / relief valve
Can't be ventilated	Pressure below 85% of response pressure	It must be possible to briefly vent the safety / relief valve over 85% of response pressure
Safety / relief valve seating leaky	The operating pressure is less than 90% of response pressure	The operating pressure must be less than 90% of response pressure
	Contamination between seating and disc	
injuries caused by fluid residues	Risk of caustic burning, burning and / or poisoning	Establish which fluid is in the safety / relief valve before it is dismantled.
Flutter	Over-dimensioned safety / relief valve	Use smaller safety / relief valve
Opening pressure too high	Safety / relief valve too small	Use larger valve

Table 4.1 Remedy of possible causes at faults



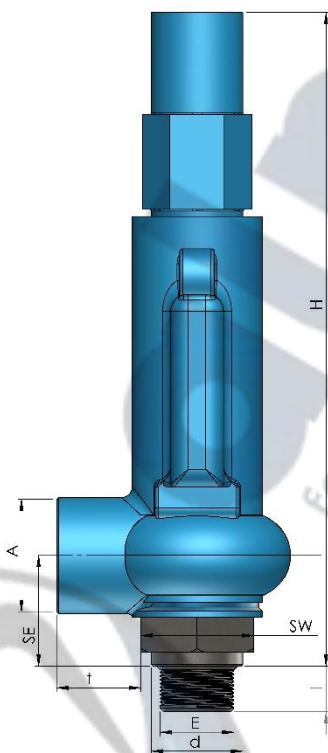
CERTIFICATION

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

- I. TYPE APPROVAL CERTIFICATE (for Typ10.1)
- II. EAC CERTIFICATE
- III. TÜV NORD CERTIFICATE
- IV. INSPECTION CERTIFICATE'S (RUSSIAN MARITIME REGISTER of SHIPPING, BUREAU VERITAS, LLOYD'S REGISTER, etc.)

5. DIMENSIONS & TECHNICAL DRAWINGS

For dimensions of AL.20.40016 please see table 5.1, for dimensions of AL20-40070 please see table 5.2. Detailed technical drawing at following page.



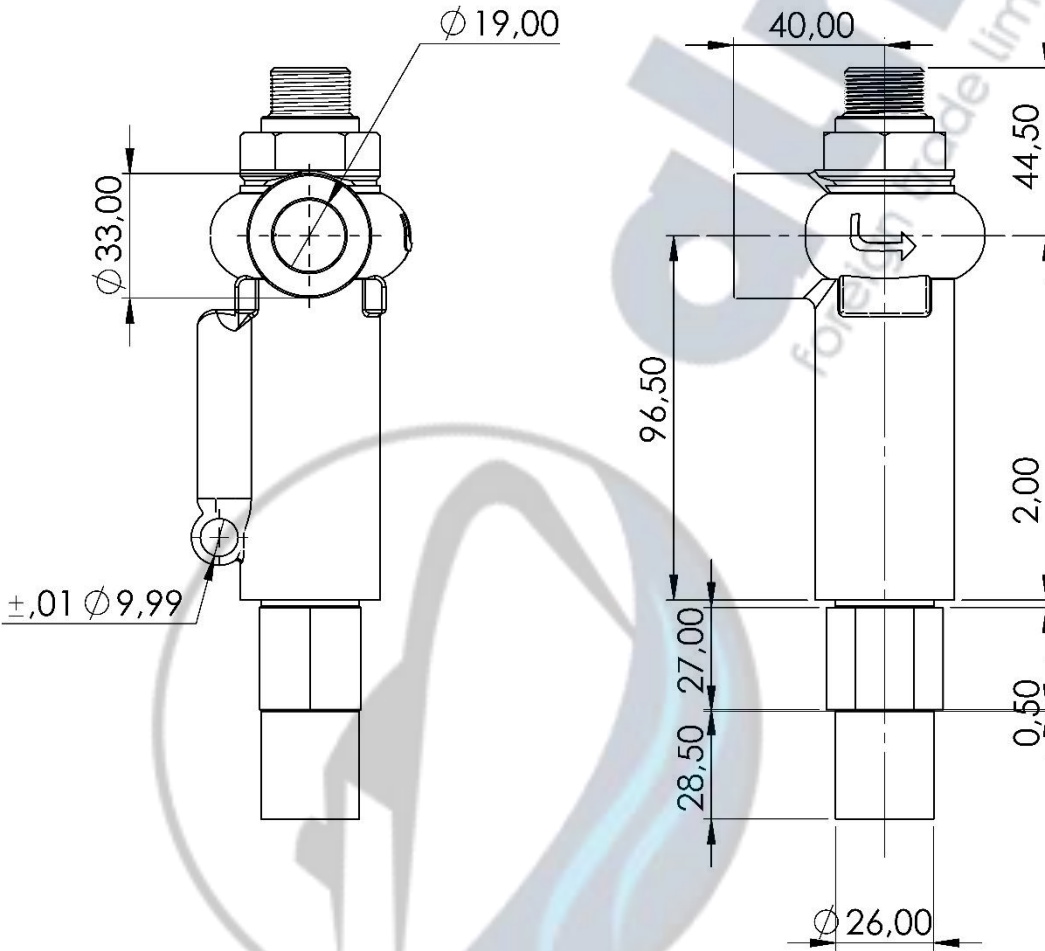
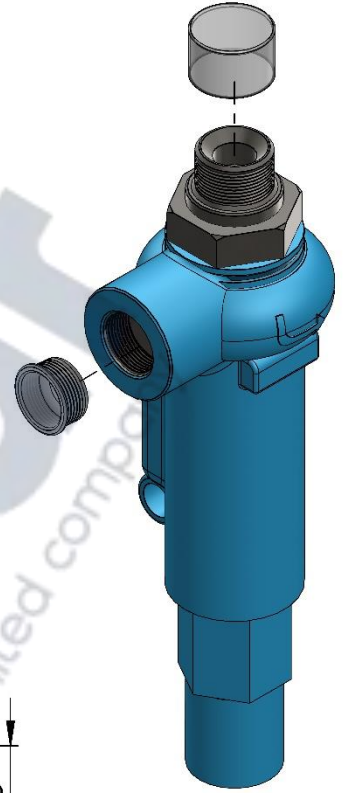
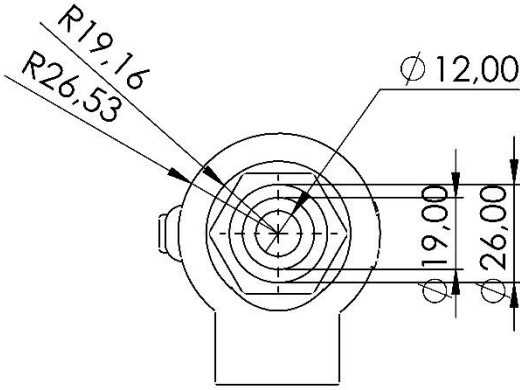
POS. NO.	INLET					OUTLET				DIMENSIONS	HEIGHT	COEFFICIENT	SET PRESSURE	WEIGHT
	E	SE	D	I _(G)	I _(NPT)	A	SA	t _(G)	t _(NPT)					
TYPE 1.1		[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	F	P _{max.}	[kg]
55	1	40	39	18	18	1	50	18	17	41	210	-	170	1.6

Table 5.1 Dimensions of AL.20.40016

POS. NO.	INLET					OUTLET				DIMENSIONS	HEIGHT	COEFFICIENT	SET PRESSURE	WEIGHT
	E	SE	D	I _(G)	I _(NPT)	A	SA	t _(G)	t _(NPT)					
TYPE 10.1		[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	F	P _{max.}	[kg]
55A	1/2	34	26	14	14	1/2	40	17	14	32	200	0.24	128	1.0

Table 5.2 Dimensions of AL.20.40070

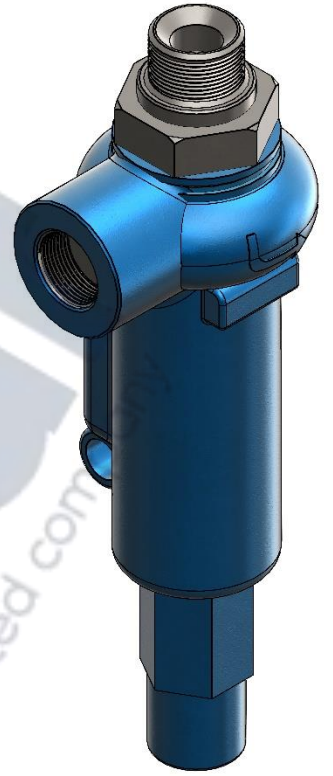
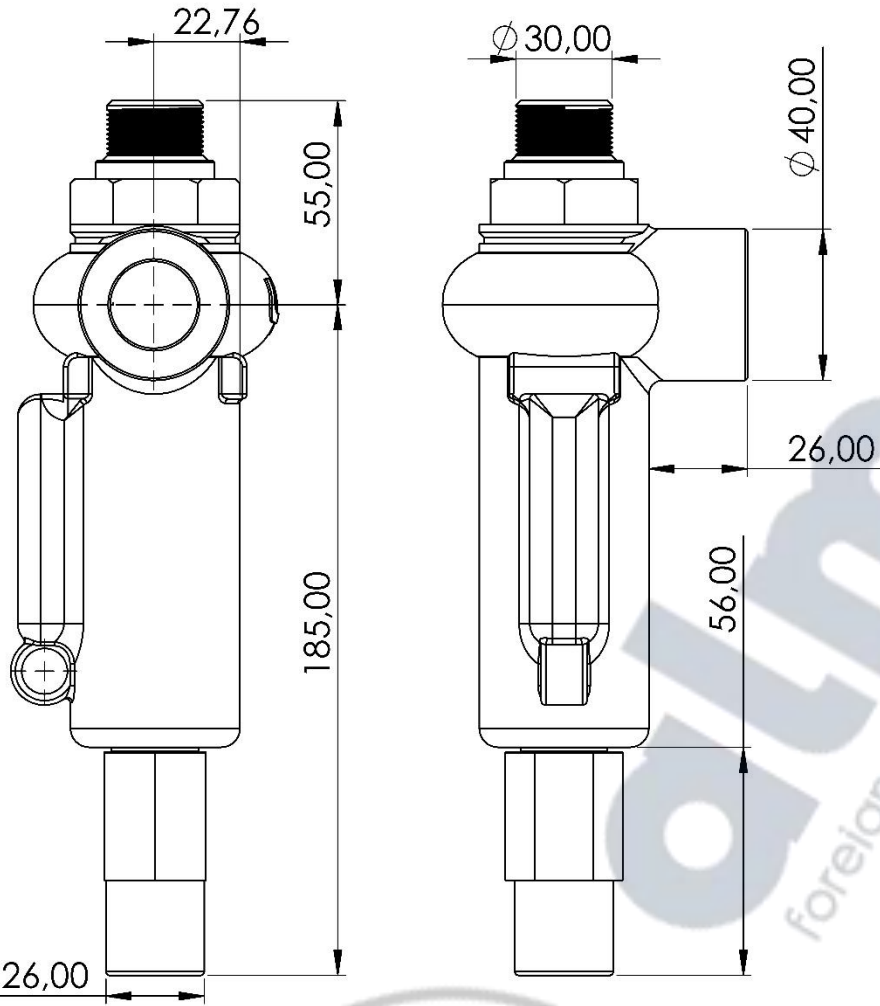
SAFETY VALVE TYP 10.1




COMMENT: TAKE OFF SAFETY CAPS BEFORE INSTALLATION
NOTE: ALL DIMENSIONS ARE GIVEN AS MILLIMETERS

DRAWING NO:	POS. NO. 55	PROUDUCT NO: AL20-40016	DATASHEET: AL20-40016 Rev00	PAGE A4
DESIGNED BY: ALİ ARMAĞAN	CHEKED BY: ÇAĞLAR LATİFOĞLU	APPROVED BY: ERDİNÇ LATİFOĞLU	DATE: 11/09/2020	SCALE: 1:3
		PROJECT / PROUDUCT: SAFETY VALVE		
		WEIGHT: -	METARIAL: -	REVISION: Sept20-Rev00

SAFETY VALVE TYP 1.1



NOTE: ALL DIMENSIONS ARE GIVEN AS MILLIMETERS

DRAWING NO:	POS. NO. 55A	PROODUCT NO: AT.20-40070	DATASHEET: AT.20-40070 Rev00	PAGE A4
DESIGNED BY: ALİ ARMAĞAN	CHEKED BY: ÇAĞLAR LATİFOĞLU	APPROVED BY: ERDİNÇ LATİFOĞLU	DATE: 24/09/2020	SCALE: 1:3
 almar foreign trade limited company		PROJECT / PROODUCT: SAFETY VALVE		
		WEIGHT: -	METARIAL: -	REVISION: Sep20-Rev00