



HANDBOOK
SAFETY DEVICES

Ed. 2017

 **Castel**[®]
Italian technology

CHAPTER 8 ■ SHUT-OFF VALVES IN SERIES 3064, 3064N, AND 3064E



APPLICATIONS

Please remember that the operation of pressure equipment and pressure assemblies is not covered by Directive 2014/68/EC ; rather, it is regulated by the national legislation of the Member States of the European Union. Therefore, the various Member States have issued laws that call for periodic inspection of pressure equipment and pressure assemblies. Italy issued Ministerial Decree 329 dated 01/12/2004 regarding the provisions for the installation and use of pressure equipment and pressure assemblies that comply with Directive 97/23/EC.

Any intervention for periodic inspection or replacement of an installed safety device becomes very difficult if the protected vessel is not equipped with a shut-off valve.

Shut-off valves in series 3064, 3064N and 3064E installed between the protected vessel and the safety valve, allow the device to be disassembled for inspection or replacement without blowing off all the refrigerant fluid from an entire section of the system.

The valves in this chapter can be used with the same fluids foreseen for safety valves series 3030, 3060, 3061 and 3065, specifically:

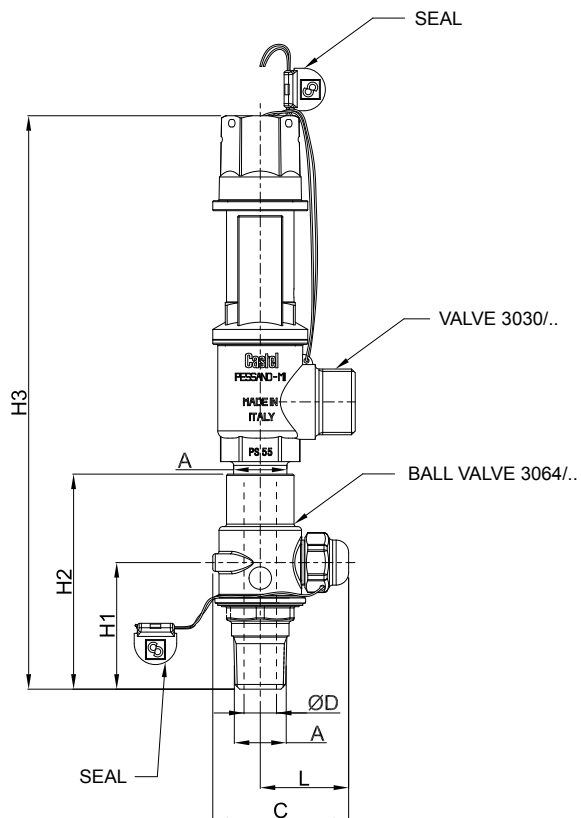
- a. Valves in series 3064 can be used with the following refrigerant fluids:
 - HCFC (R22)
 - HFC (R134a, R32, R404A, R407C, R410A or R507)
 - HFO and HFO/HFC mixtures (R1234yf, R1234ze, R448A, R449A, R450A or R452A)
- b. Valves in series 3064N can be used with the following refrigerant fluids:
 - HFC (R134a, R32, R404A, R407C, R410A or R507)
 - HFO and HFO/HFC mixtures (R1234yf, R1234ze, R448A, R449A, R450A or R452A)
 - HC (R290 , R600 , R600a)

CAUTION! Valves in series 3064N cannot be installed on systems that use HCFC (R22) refrigerants or other refrigerants blended with mineral oils or alkylbenzenes.
- c. Valves in series 3064E can be used only with refrigerant fluid R744.

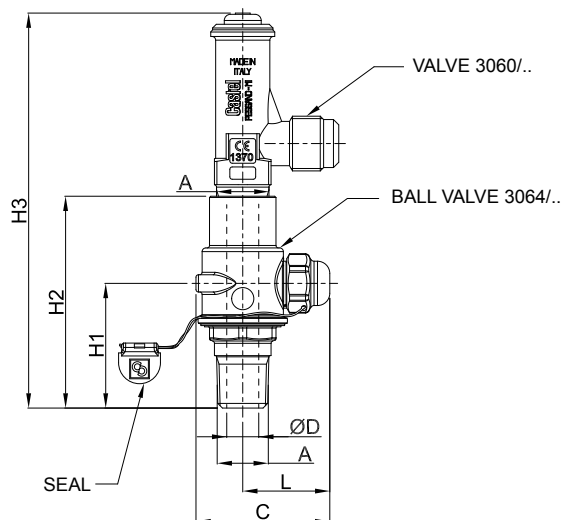
CONSTRUCTION

Valves in series 3064, 3064N and 3064E are supplied by Castel in the open position and the spindle cap protection is sealed with a Castel lead seal. Any operation to close the valve requires causes the tampering with the seal and must be performed exclusively by:

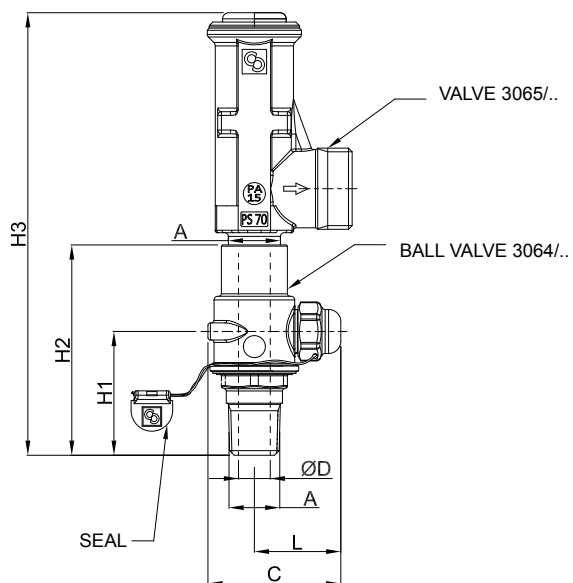
- staff authorized to work on the system
 - an operator of a competent inspection body
- These persons will be responsible for the subsequent re-opening of the valve and the application of a new cap seal with their own lead seal.
- The main parts of the valves in series 3064, 3064N, and 3064E are made from the following materials:
- Hot forged brass EN 12420 – CW 617N for the body
 - Hot forged brass EN 12420 – CW 617N, chromium plated, for the ball
 - Steel, with proper surface protection, for the spindle.
 - P.T.F.E. for the ball seat gaskets
 - Chloroprene rubber (CR) for outlet seal gaskets in valves series 3064
 - Hydrogenated nitrile butadiene rubber (HNBR) for outlet seal gaskets in valves series 3064N
 - Ethylene propylene diene monomer rubber (EPDM) for outlet seal gaskets in valves series 3064E
 - Hot forged brass EN 12420 – CW 617N for the protective cap of the spindle



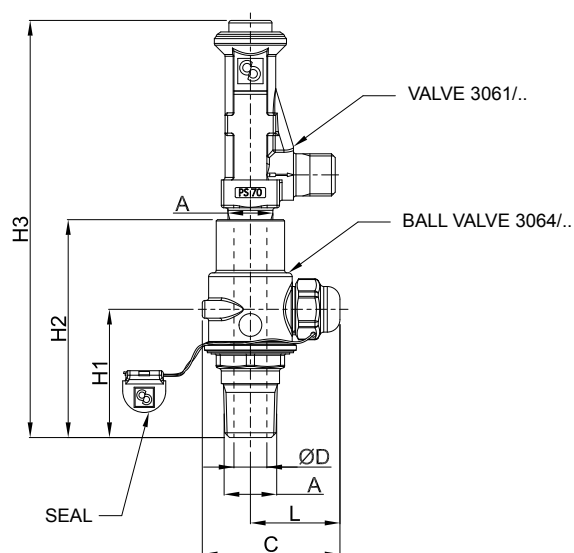
3064/44 → 3030/44C
 3064/88 → 3030/88C
 3064N/44 → 3030/44C
 3064N/88 → 3030/88C
 3064E/44 → 3030/44C
 3064E/88 → 3030/88C



3064/22 → 3060/..C
 3064/33 → 3060/..C
 3064/44 → 3060/..C
 3064N/22 → 3060/..C
 3064N/33 → 3060/..C
 3064N/44 → 3060/..C
 3064E/22 → 3060/..C
 3064E/33 → 3060/..C
 3064E/44 → 3060/..C



3064/44 → 3065/4C
 3064N/44 → 3065/4C
 3064E/44 → 3065/4C



3064/22 → 3061/2C
 3064/33 → 3061/3C
 3064/44 → 3061/4C
 3064N/22 → 3061/2C
 3064N/33 → 3061/3C
 3064N/44 → 3061/4C
 3064E/22 → 3061/2C
 3064E/33 → 3061/3C
 3064E/44 → 3061/4C

TABLE 23: General characteristics, dimensions and weights of valves series 3064

Catalogue Number	Designed for valve	Kv Factor [m³/h]	PS [bar]	TS [°C]		TA [°C]		Dimensions [mm]						Inlet connection wrench torque (min/max) [Nm]	Weight [g]	Risk Category according to PED Recast	
				min	max	min	max	∅ D	A	C	L	H ₁	H ₂				H ₃
3064/22	3060/23C	2,5	80	-40	+150	-40	+50	7	1/4" NPT	47	32	45	74	10/15	216	Art. 4.3	
	3060/24C																147
	3061/2C																
3064/33	3060/33C	5						10	3/8" NPT	47	32	45	74	14/20	208		
	3060/34C																147
	3060/36C																163
	3061/3C							154									
3064/44	3060/45C	10						13	1/2" NPT	54	35	51	86	21/30	334		
	3060/46C																165
	3061/4C																176
	3065/4C																168
	3030/44C																188
3064/88	3030/88C	20	20	1" NPT	78	52	70	119	323	50/65	871						

TABLE 24: General characteristics, dimensions and weights of valves series 3064N

Catalogue Number	Designed for valve	Kv Factor [m³/h]	PS [bar]	TS [°C]		TA [°C]		Dimensions [mm]						Inlet connection wrench torque (min/max) [Nm]	Weight [g]	Risk Category according to PED Recast	
				min	max	min	max	∅ D	A	C	L	H ₁	H ₂				H ₃
3064N/22	3060/23C	2,5	80	-40	+150	-40	+50	7	1/4" NPT	47	32	45	74	10/15	216	Art. 4.3	
	3060/24C																147
	3061/2C																
3064N/33	3060/33C	5						10	3/8" NPT	47	32	45	74	14/20	208		
	3060/34C																147
	3060/36C																163
	3061/3C							154									
3064N/44	3060/45C	10						13	1/2" NPT	54	35	51	86	21/30	334		
	3060/46C																165
	3061/4C																176
	3065/4C																168
	3030/44C																188
3064N/88	3030/44C	20	20	1" NPT	78	52	70	119	323	50/65	871						

TABLE 25: General Characteristics, dimensions and weights of valves series 3064E

Catalogue Number	Designed for valve	Kv Factor [m³/h]	PS [bar]	TS [°C]		TA [°C]		Dimensions [mm]						Inlet connection wrench torque (min/max) [Nm]	Weight [g]	Risk Category according to PED Recast	
				min	max	min	max	∅ D	A	C	L	H ₁	H ₂				H ₃
3064E/22	3060/23C	2,5	120	-40	+150	-40	+50	7	1/4" NPT	47	32	45	74	10/15	216	Art. 4.3	
	3060/24C																147
	3061/2C																
3064E/33	3060/33C	5						10	3/8" NPT	47	32	45	74	14/20	208		
	3060/34C																147
	3060/36C																163
	3061/3C							154									
3064E/44	3060/45C	10						13	1/2" NPT	54	35	51	86	21/30	334		
	3060/46C																165
	3061/4C																176
	3065/4C																168
	3030/44C																188
3064E/88	3030/88C	20	20	1" NPT	78	52	70	119	323	50/65	871						

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Castel Srl - Via Provinciale 2-4 - 20060 Pessano con Bornago - MI