



# sena va30 valve.



**TECHNICAL SHEET 07/2015 | IP18010**

## SCOPE

SENA series are manually operated metallic ball valves that by its design and raw materials are intended to be used in:

- Drinking water networks.
- Water supply connection.
- Plumbing networks
- Hot water networks.
- Heating systems.

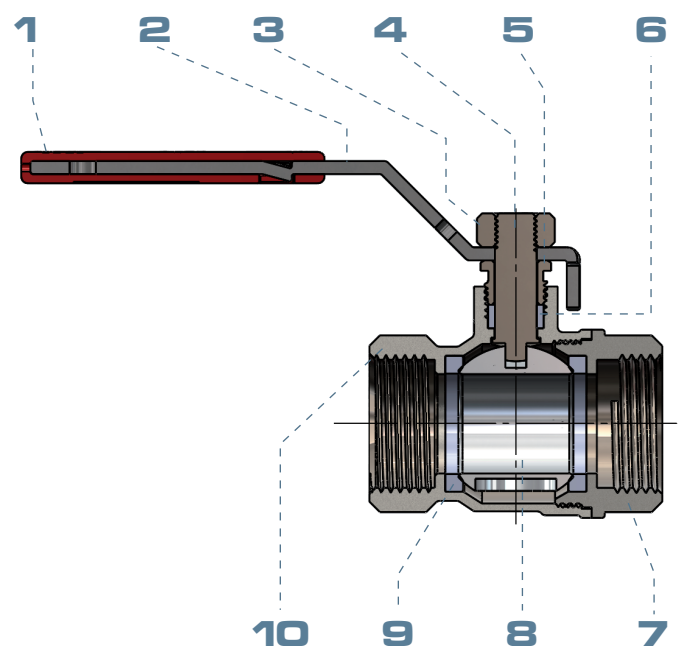
In general all those applications where it is required a valve to stop the fluid supply, assuring the leaktightness in accordance to the working conditions.

## SERVICE CONDITIONS

- Nominal pressure: 30 bar
- Test pressure: 45 bar
- Temperature range: -20°C up to 120°C, excluding frozen.
- Fluid: Drinking water and hot water.

## COMPONENTS

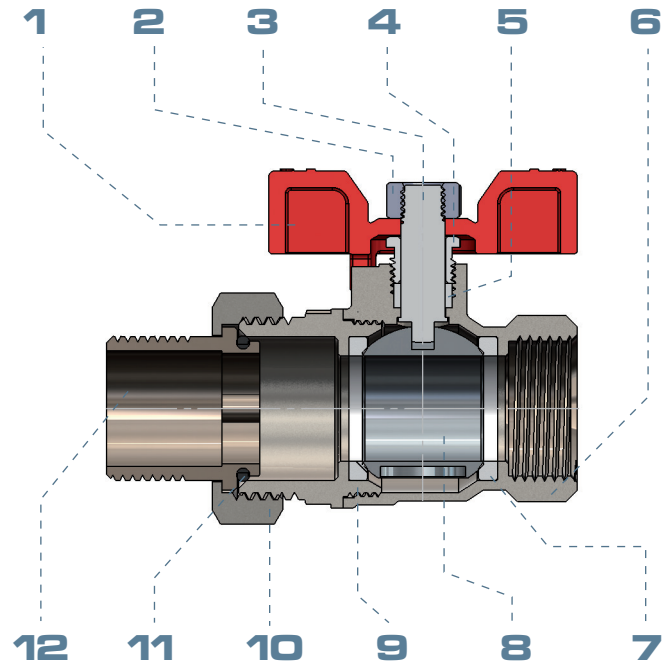
Item	Component	Material	Treatment
1	Cover	LDPE	
2	Handle	Steel	Geomet*
3	Handle nut	Steel	Geomet*
4	Stem	European Brass CW614N	Zinc plated
5	Sealing gland nut	Brass	Nickel plated
6	Sealing gland	PTFE	
7	Lateral	European Brass CW617N	Nickel plated
8	Ball	Brass	Chrome
9	Seat	PTFE	
10	Body	European Brass CW617N	Nickel plated



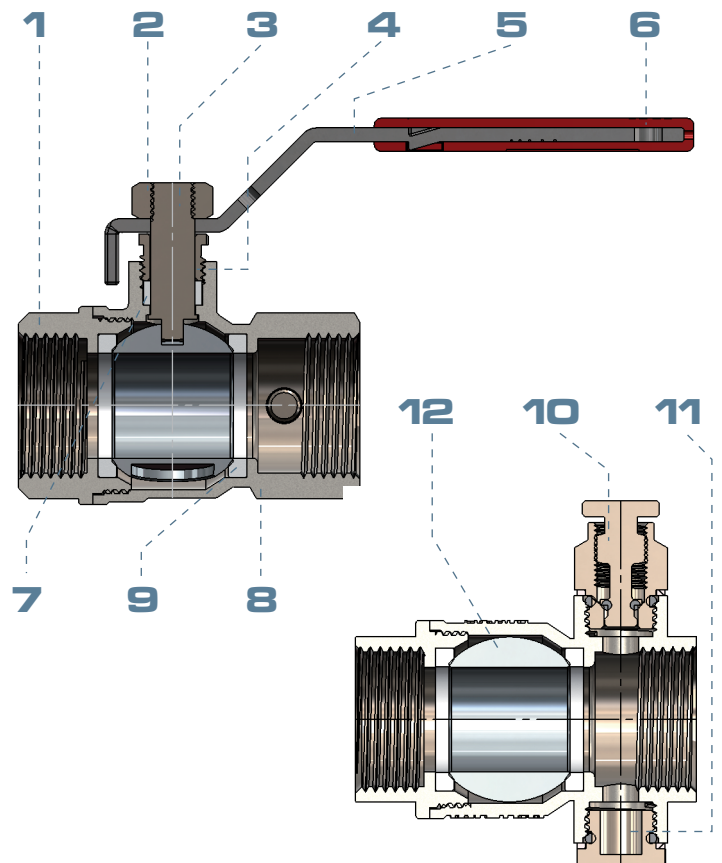


## COMPONENTS

Item	Component	Material	Treatment
1	Butterfly handle	Metal	Red epoxy
2	Handle nut	Steel	Geomet*
3	Stem	European Brass CW614N	Zinc plated
4	Sealing gland nut	Brass	Nickel plated
5	Sealing gland	PTFE	
6	Body	European Brass CW617N	Nickel plated
7	Seat	PTFE	
8	Ball	Brass	Chrome plated
9	Lateral	European Brass CW617N	Nickel plated
10	Nut	European Brass CW617N	Nickel plated
11	O-ring	Elastomeric	
12	Coupling	European Brass CW617N	Nickel plated



Item	Component	Material	Treatment
1	Lateral	European Brass CW617N	Nickel plated
2	Handle nut	Steel	Geomet*
3	Stem	European Brass CW614N	Zinc plated
4	Sealing gland nut	Brass	Niquelado
5	Handle	Steel	Geomet*
6	Cover	LDPE	
7	Sealing gland	PTFE	
8	Body	European Brass CW617N	Nickel plated
9	Seat	PTFE	
10	Manual air vent	Brass	Nickel plated
11	Cap	Brass	Nickel plated
12	Ball	Brass	Chrome plated





## MAIN CONSTRUCTIVE FEATURES

### Body and lateral

Main body and lateral manufactured in European brass alloy CW617N, by the mean of a hot stamping process. This process confers to the European brass alloy the following advantages against casting parts:

- Pores absence.
- Surfaces with better finished and without bumpy texture.
- Higher mechanical endurance .

### Seats and sealing gland

Seats and sealing gland are made in PTFE, avoiding internal and external leaktightness due to its perfect fit on metallic surfaces.

### Spherical closure

Spherical closure is made in brass, ensuring a higher mechanical endurance against high pressure and maneuvers.

Its diamond mechanized and the following chrome plated applied on the ball surface assure a long lifespan and a smooth maneuver.

### Internal leaktightness (Close position)

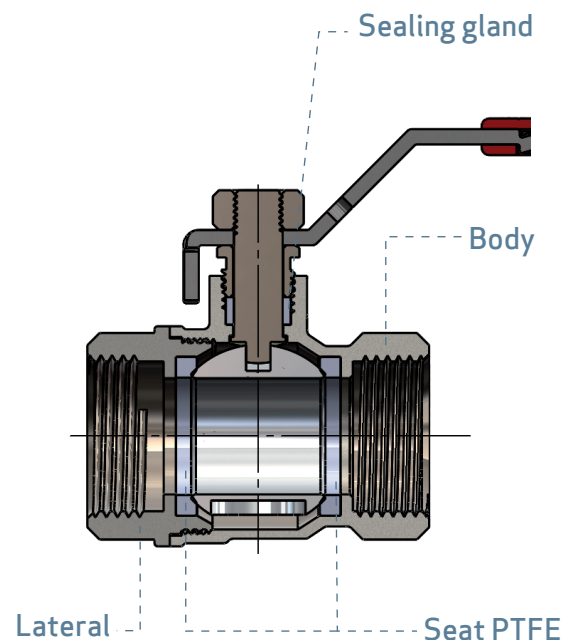
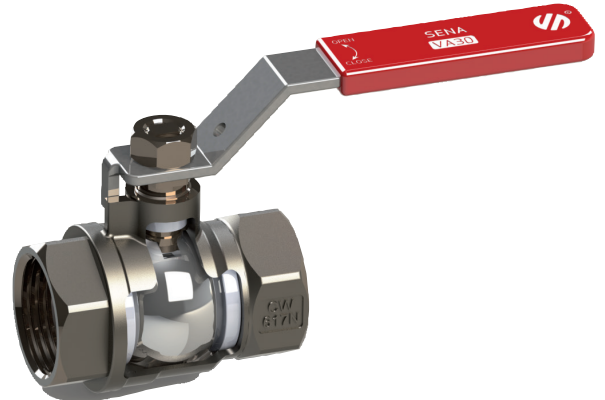
Internal leaktightness is assured in both directions by the PTFE seat that press against the spherical closure.

### External leaktightness (Open position)

External leaktightness through the stem is assured by a PTFE sealing gland allowing its retightening if necessary.

### Connections

Within the series SENA can find two types of threaded fasteners. The most common is the ISO 228 although female / female threaded version junctions can find NPT (ANSI / ASME B.120.1).



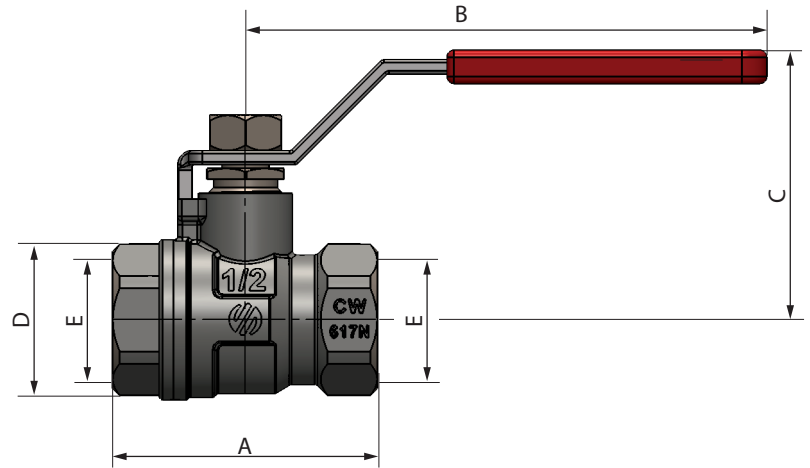


## DIMENSIONS

### Female-Female. Lever Handle

Size	A	B	C	D	E
1/4F x 1/4F	44	70	40	HEX17	G 1/4
3/8F x 3/8F	44	70	40	HEX17	G 3/8
1/2F x 1/2F	48	93	49	HEX25	G 1/2
3/4F x 3/4F	57	93	53	HEX30	G 3/4
1F x 1F	67	113	61	OCT 37	G 1
1 1/4F x 1 1/4F	76	113	66	OCT 47	G 1 1/4
1 1/2F x 1 1/2F	90	153	74	OCT 54	G 1 1/2
2F x 2F	107	153	81	OCT 67	G 2
2 1/2F x 2 1/2F	134	173	90	OCT 82	G 2 1/2
3F x 3F	152	238	116	OCT 96	G 3
4F x 4F	169	238	124	OCT120	G 4

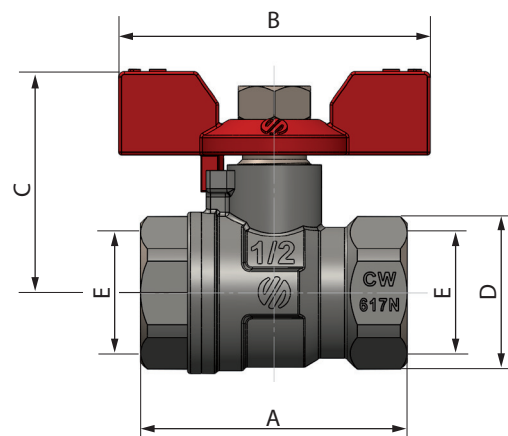
G Thread (T) ISO 228 or NPT depending model



### Female-Female. Butterfly Handle

Size	A	B	C	D	E
3/8F x 3/8F	44	49	38	HEX17	G 3/8
1/2F x 1/2F	48	56	40	HEX25	G 1/2
3/4F x 3/4F	57	56	44	HEX30	G 3/4
1F x 1F	67	80	52	OCT 37	G 1

G Thread (T) ISO 228



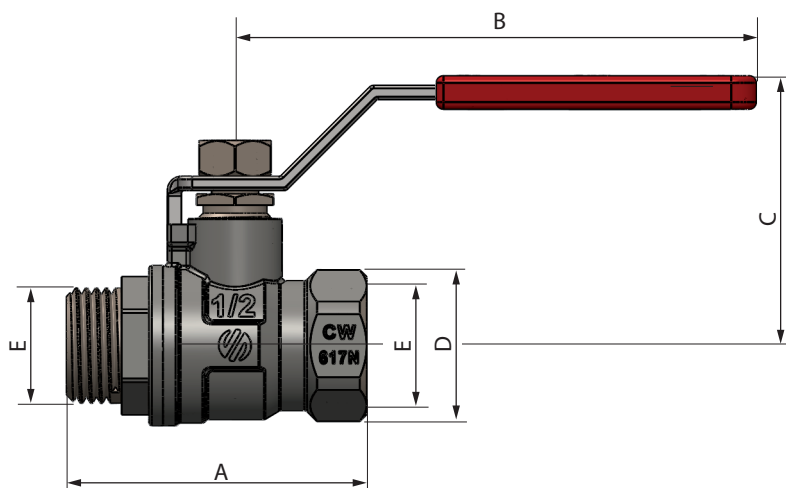


## DIMENSIONS

### Male-Female. Lever Handle

Size	A	B	C	D	E
3/8M x 3/8F	49	70	40	HEX17	G 3/8
1/2M x 1/2F	55	93	49	HEX25	G 1/2
3/4M x 3/4F	63	93	53	HEX30	G 3/4
1M x 1F	72	113	61	OCT 37	G 1
1 1/4M x 1 1/4F	85	113	66	OCT 47	G 1 1/4
1 1/2M x 1 1/2F	98	153	74	OCT 54	G 1 1/2
2M x 2F	119	153	81	OCT 67	G 2

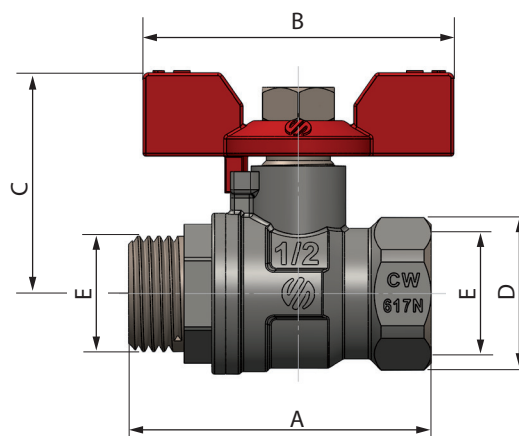
G Thread (T) ISO 228



### Male-Female. Butterfly Handle

Size	A	B	C	D	E
3/8M x 3/8F	49	49	38	HEX17	G 3/8
1/2M x 1/2F	55	56	40	HEX25	G 1/2
3/4M x 3/4F	63	56	44	HEX30	G 3/4
1M x 1F	72	80	52	13789	G 1

G Thread (T) ISO 228



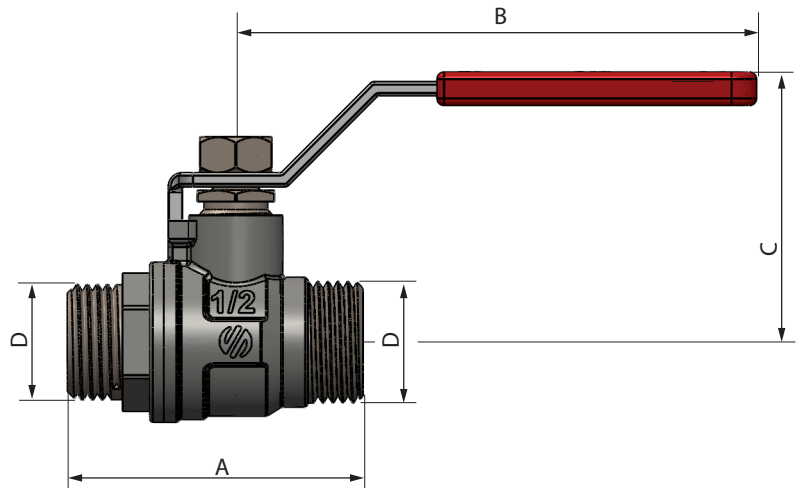


## DIMENSIONS

### Male - male. Lever Handle

Size	A	B	C	D
3/8M x 3/8M	50	70	40	G 3/8
1/2M x 1/2M	54	93	49	G 1/2
3/4M x 3/4M	62	93	53	G 3/4
1M x 1M	72	113	61	G 1

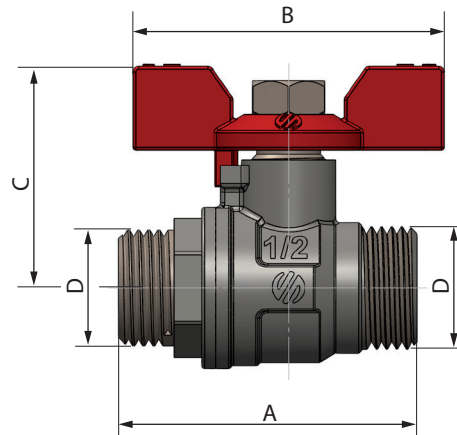
G Thread (T) ISO 228



### Male - male. Butterfly Handle

Size	A	B	C	D
3/8M x 3/8M	50	49	38	G 3/8
1/2M x 1/2M	54	56	40	G 1/2
3/4M x 3/4M	62	56	44	G 3/4
1M x 1M	72	80	52	G 1

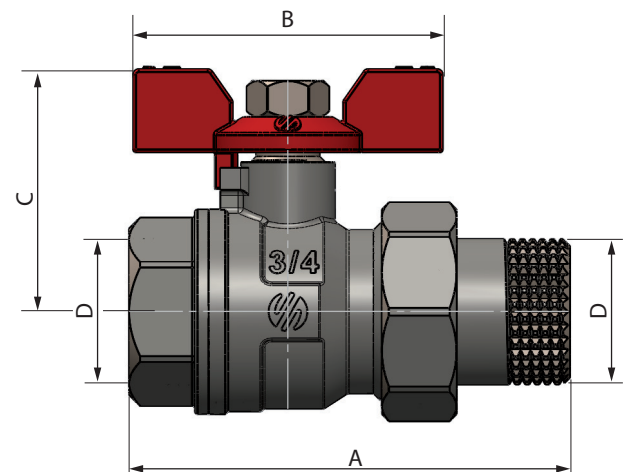
G Thread (T) ISO 228



### Manifold. Butterfly Handle

Size	A	B	C	D
1/2F x 3/4M	78	56	40	G 1/2
3/4F x 1M	80	56	44	G 3/4
1F x 1 1/4M	95	80	52	G 1
1 1/4F x 1 1/4M	115	80	56	G 1 1/4

G Thread (T) ISO 228



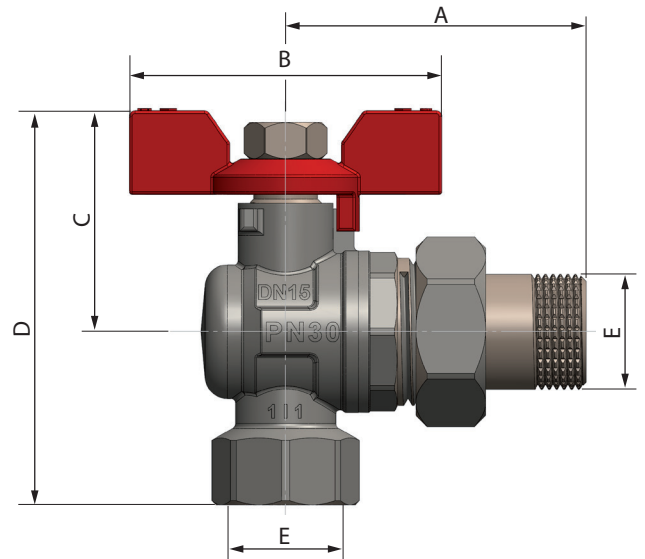


## DIMENSIONS

### Angle manifold

Size	A	B	C	D	E
1/2F x 3/4M	54	56	40	71	G 1/2
3/4F x 1M	63	56	44	75	G 3/4
1F x 1 1/4M	70	80	48	80	G 1

G Thread (T) ISO 228

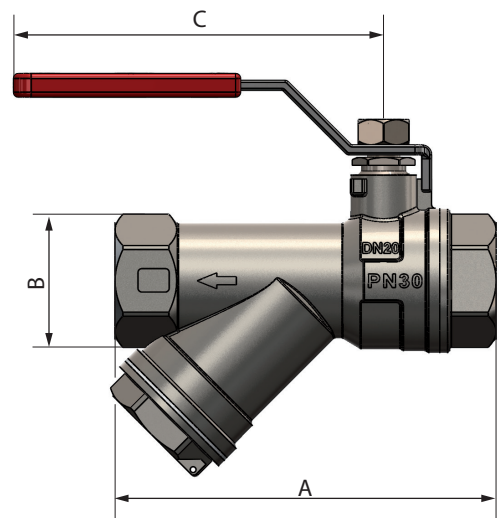


### Female - female with FILTER - Lever handle

Size	A	B	C
1/2F x 1/2F	70	G 1/2	56
3/4F x 3/4F	97	G 3/4	56
1F x 1F	116	G 1	80

G Thread (T) ISO 228

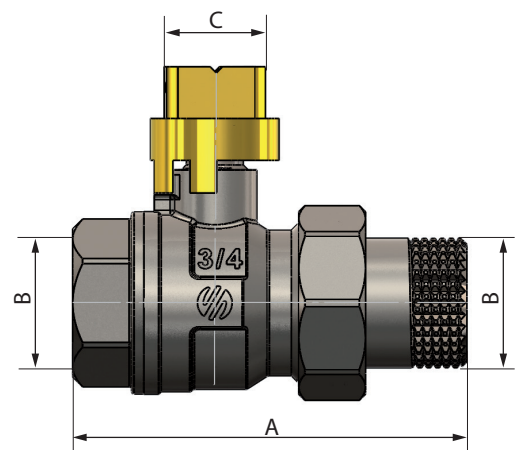
Butterfly handle available



### Mainfold. Square handle

Size	A	B	C
1/2F x 3/4M	78	G 1/2	20

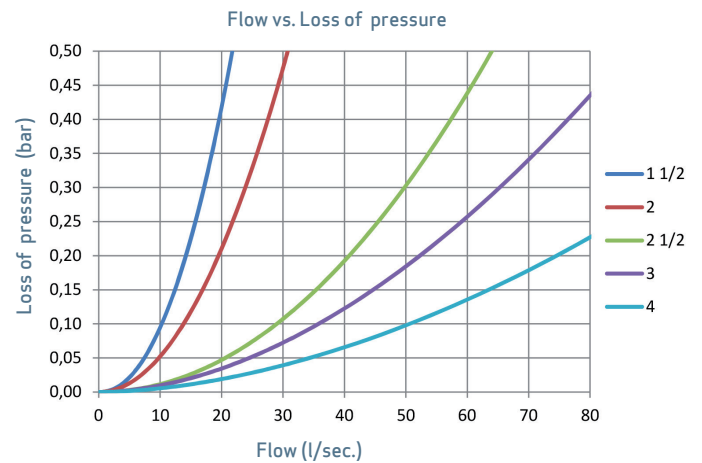
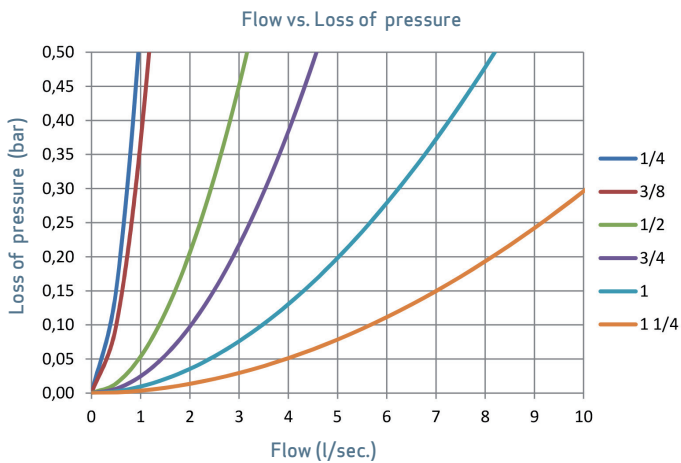
G Thread (T) ISO 228





## HYDRAULIC FEATURES

The SENA series has been tested by our laboratory to determine the hydraulic characteristics of flow rate vs losses to European standard EN 1267.



## INSTALATION AND ASSEMBLY

Hold the valve from faces of the hexagons, never from the central part or its neck, that will avoid internal components deformations (in other case valve could be damaged inevitably).

The maximum valve life is obtained with the closure sphere in the full open or close position, it is recommended do not work in intermediate positions for long time periods.

Valve must be maneuver every 3 months, this frequencies must be increased for waters with a French hardness over 50°.

