



Non return valves

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## SOCLA, MANUFACTURER ...

#### **DESIGN, INNOVATE**

 Specialist in the control of fluids in movement, our R&D team integrates in its studies all networks parameters...

Assisted by a powerful date processing, served by the most recent softwares, its objective is the design of innovating products, research of competitiveness and reliability, in respect of environment.



#### PRODUCE

Our specialised units, ISO 9001 certified (2000 version) work on recent conception multiposts CNC machines, driven by a sophisticated CAD system.

A particular care is taken to selection and transformation of raw materials, in the respect of ISO 14001 standard.





#### **TEST, MEASURE**

Beyond theorical date-processing and technical calculations, Socla integrates in Virey-le-Grand one of the most important hydraulic laboratory.

This tool, amont the most powerful ones in Europe, consolidates Socla in its position of expert in the control of fluids in movement.





#### SERVICE

Since Virey-le-Grand, near Chalon-sur-Saône in France, the Socla logistic centre delivers all orders around Europe, quickly, guaranteeing the efficient service required by the customer





## **SUMMARY**

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Most of our models are approved by Veritas (France); specific approvals in different countries are given alongside information on each type of valve.

Certificates of approval for the materials used in manufacture can be supplied on request. An additional charge may be applied for NF 1024- 31B certificates.

# **HOW TO SELECT**







## THERE IS NO UNIVERSAL CHECK VALVE

The check valve might appear to be a simple device. Broadly speaking, it functions like a door.

In truth, the valve has to adapt to many different kinds of fluid, to an enormous variety of installations each with their own particular constraints - mechanical, hydraulic, physical or chemical.

To help you in your selection we have listed the broad parameters within which to make your choice.

To meet your selection criteria, we offer 11 types of closing system, each system being more or less compatible.



# A CHECK VALVE



## APPLICATIONS

WATER SUPPLY					STORAGE	DIS	TRIBUTION SUPPLY TO BUILDINGS		
	NT INDUSTRY DUSTRY AGRIC AGRICULTURE	Y WATER SUP CULTURE DISTR DISTRIBUTION	RIBUTION DISTRI	AGRICULTU IBUTION SEV PROTECTION	RE DISTRIBUTIC VAGE PRESSL PUMPING	IRE PUMPS	PUMPING HEA PUMPING	INDUSTRY TING SUPPLY TO INDUSTRY	I BUILDINGS HEATING
	Ĉ,	Č			15 P				
<b>03</b> (+ 03HP)	05 double plate	05 single plate	05 with flanges	06 with flanges	В	M (+MI)	TJ	<b>TJO</b> (+04 +FL)	W
•		٠	٠	•			•	•	•
				•	•				
•	•		•			•			•
				•	•				•
•	•	•	•	•	•	•		•	•
*	<b>↓</b>	<b>↓</b>	<b>↓</b>	*	<b>↓</b>	*	1	*	*
80°/90°	100°/130°	110°/180°	70°	90°	60°/150°	60°/100°	60°	60°/80°	100°/350°
16	16/25	16	16	16	10	6(MI),16(M), 25(M)	6/10	10	16/40
1/2" - 2"					1" - 3"	3/8" - 4"		1/4" - 2"	1/2" - 2"
0 - 250 mm			65 - 300 mm	50-150 mm	50 - 350 mm	40 - 200 mm Non return 40 - 300 mm foot valve	200 - 600 mm		
	Wafer 50 - 600 mm	Wafer 40 - 600 mm							Wafer 15 - 200 mm

\* Some finishes are appropriate for drinking water or can be adapted for alimentary use. Please consult us.

## 01 SYSTEM with double (axial and lateral) guide



Excellent sealing for high or low pressure
 Antipollution approved in the majority of European countries
 Many special versions available





SƏCLA

# 01 SYSTEM

## 231/601/601V/601P



601P

3/8" to 2" valves with brass casings, female/female

PN 10 - Guide and closing system in POM (polyacetal) or PPO (polyphenylene oxide), nitrile rubber (NBR) seal, stainless steel spring, NBR seal for sanitation, heating circuits (anti-thermo syphon), general installations, protection of pumps for burners (601 V 3/8" and 1/2" with FKM fluorised rubber seal) and some gas. Temperature 80°C



251/251S FOR WATER METERS

Male/female valve with brass casing, equipped with two drilled and plugged bosses, guide and closing system in POM (polyacetal), seal in NBR (nitrile) with captive nut to ensure easy dismantling. Valves with elbow connections available for use in corners. NF 🕼 ACS

251S version : lenght 58mm

Available in different versions

• 251 PU : with drain cock • 251 PP : with cylindrical drainpoints

• 251 SPU : short version with purge

• 251 SPP : short version with cylindrical drainpoints

• 251 CC : with POM plugs

Température : 80°C

281

### 221B/271/291 FOR PROTECTION OF

#### **DRINKING WATER NETWORKS**



28

Female/female valves with brass casing and two drilled bosses, guide and closing system POM (polyacetal) : 221B and 291 NF seal in EPDM, spring in stainless steel.

The bosses allow watertightness checks and the draining of the installation. • 271 : male/male brass casing with union nut connection, guide and closing system in PAR (polyarylamide) or POM (polyacetal) Temperature : 80°Ć

NF 🕼 ACS



#### **OF DRINKING WATER NETWORKS**

• 2231 : double valve female/female of 231 type with boss between the two valves. Temperature : 100°C • 2211 : double valve with compression connections, same style. Temperáture : 80°C S ACS

#### FOR SANITATION

Male/female connection also exists in 2 other versions : • 281 C : in chrome-plated brass • 281 P : in POM (Polyacetal) Temperature 281 C : 80° C - 281 P : 65°C

901/911/921/931 INSERT CHECK VALVES

Insert check valves with casing in POM (polyacetal), or PA12 (polyamide) or brass. 901 type valves are designed to be inserted at the outlet of water meters ; the other types are designed to be inserted in a variety of other systems. • 901-911 : 🔊

Guaranteed sealing under all conditions

with the lipped seal

At low pressure water tightness is achieved by the contact between the closing system and the edge of the I-shaped seal



At high pressure the sealing takes place between the closing system and the I-shaped seal all along its internal length. The closing system is then in the closed position on the casing, safeguarding the seal and allowing re-opening at a low pressure (no risk of blocking).



## Headloss chart (Type 221 B)



## The 01

### system range

221 B	BRASS	THREADED F/F	3/4 to 2"
231	BRASS	THREADED F/F	3/8 to 2"
291 NF	BRASS	THREADED F/F	1/2 to 2"
601	BRASS	THREADED F/F	3/8 to 2"
601 V	BRASS	THREADED F/F	3/8 to 2"
2231	BRASS	THREADED F/F	1/2 to 2"
201	BRASS	THREADED F/M	1/2 to 1"
251	BRASS	THREADED F/M	3/4 to 2"
251 PP	BRASS	THREADED F/M	3/4 to 2"
251 PU	BRASS	THREADED F/M	3/4 to 2"
251 CC	BRASS	THREADED F/M	3/4 to 1"
251 S	BRASS	THREADED F/M	3/4
251 SPU	BRASS	THREADED F/M	3/4
251 SPP	BRASS	THREADED F/M	3/4
281	BRASS	THREADED M/F	3/8 to 1"
281 C	CHROMED BRASS	THREADED M/F	1/2 to 3/4"
281 P	PLASTIC	THREADED M/F	1 1/4"
241	BRASS	THREADED M/M	1/4 to 3/4"
261	BRASS	THREADED M/M	3/4 to 1"
271*	BRASS	THREADED M/M	3/4 to 21/2"
211	BRASS	COMPRESSION FITTING	8 to 28"
2211	BRASS	COMPRESSION FITTING	15 to 28"
901	PLASTIC	INSERT	3/8 to 1"
911	PLASTIC	INSERT	C15
921	BRASS	INSERT	C15 to 50
931	BRASS	INSERT	C15 to C25

F = Female ; M = Male - \* Thread Ø





SƏCLA

# 02 SYSTEM simple guiding



Diameter 40 to 500 mm PN 16 drilled PN 10 The most universal of Socla's valves for the protection of pumps, general pipeline networks, pressure pumps, water distribution. Temperature 100°C Flanged or threaded



402

#### Available in many types :

- 402V : with FKM flat seal (100° C)
- **40211P** : all anti-incrustation PTFE coating, internal/external • 402TTP
- 402S : in GS cast iron for high pressures (40 bar)
- 402RR : with polyamide anti-corrosion coating 202RR
- 422 : seat and closing system in bronze to resist corrosion

#### 402Z/402X FOR AGGRESSIVE LIQUIDS

- Bronze : for aggressive substances and environments
- Stainless steel : for industrial processes, food industry, etc...
- PN:25
- 402Z approvals :





202B

407

402B

402B/202B PROTECTION OF WATER SUPPLY

CE

Valves with drilled and plugged bosses, allowing water quality to be checked, the circuit to be drained and water-tightness to be checked, or the installation of a by-pass. PN:16 • **402B** approvals :

🚳 🔽 🔜 kiwa 🛐 ACS WRAS

412/212 FOR PUMPING



## Dynamic characteristics of valve closure



Overpressure measured downstream of 150mm check valves when the pump stops

The valves can carry a load of 50m/wc. Output 150m3/h (according to tests carried out by the CETIM)

## Headloss chart (Type 402)



## The 02 system range

#### NON-RETURN VALVES

202	CAST IRON FGL 250	THREADED F/F	2 <sup>1/2</sup> to 4"
202 B	CAST IRON FGL 250	THREADED F/F	2 <sup>1/2</sup> to 4"
202 RR	CAST IRON FGL 250 + RILSAN	THREADED F/F	2 <sup>1/2</sup> to 4"
202 TT	CAST IRON FGL 250 + Teflon	THREADED F/F	2 <sup>1/2</sup> to 4"
202 TTP	CAST IRON FGL 250 + Teflon	THREADED F/F	2 <sup>1/2</sup> to 4"
202 V	CAST IRON FGL 250 + FKM seal	THREADED F/F	2 <sup>1/2</sup> to 4"
202 W	CAST IRON FGL 250	THREADED F/F	2 <sup>1/2</sup> to 4"
202 X	STAINLESS STEEL +FKM seal	THREADED F/F	2 <sup>1/2</sup> to 4"
202 Z	BRONZE	THREADED F/F	2 <sup>1/2</sup> to 4"
212	CAST IRON FGL 250	THREADED M/F	2 <sup>1/2</sup> to 8"
212 S	CAST IRON GS 400-15	THREADED M/F	2 <sup>1/2</sup> to 8"
212 Z	BRONZE	THREADED M/F	2 <sup>1/2</sup> to 8"
402	CAST IRON FGL 250	FLANGED	40 to 500 mm
402 B	CAST IRON FGL 250	FLANGED	40 to 500 mm
402 S	CAST IRON GS 400-15	FLANGED	40 to 500 mm
402 TTP	CAST IRON FGL 250 +PTFE	FLANGED	50 to 500 mm
402 V	CAST IRON FGL 250 + FKM seal	FLANGED	40 to 500 mm
402 W	CAST IRON FGL 250	FLANGED	40 to 500 mm
402 X	STAINLESS STEEL AISI 304 + FKM seal	FLANGED	40 to 500 mm
402 Z	BRONZE	FLANGED	40 to 400 mm
412	CAST IRON FGL 250	FLANGED	125 to 300 mm
412 S	CAST IRON GS 400+15	FLANGED	125 to 300 mm
412TT	CAST IRON FGL 250 + TEFLON	FLANGED	125 to 300 mm
412 X	STAINLESS STEEL + FKM seal	FLANGED	125 to 300 mm
412 Z	BRONZE	FLANGED	125 to 300 mm
422	CAST IRON FGL 250 +BRONZE	FLANGED	50 to 400 mm
882	CAST IRON FGS 400.15	BETWEEN FLANGES	65 to 250 mm
FOOT VALVE	ES		
102	CAST IRON FGL 250	THREADED F	2 <sup>1/2</sup> to 8"
102 P	CAST IRON FGL 250	THREADED F	2 <sup>1/2</sup> to 4"
102 PV	CAST IRON FGL 250 + FKM seal	THREADED F	2 <sup>1/2</sup> to 4"
302	CAST IRON FGL 250	FLANGED	50 to 400 mm
302 P	CAST IRON FGL 250	FLANGED	50 to 100 mm
302 PV	CAST IRON FGL 250 + FKM seal	FLANGED	50 to 100 mm
302 X	STAINLESS STEEL AISI 304 + FKM sea	IFLANGED	50 to 400 mm
302 Z	BRONZE	FLANGED	50 to 100 mm
312	CAST IRON FGL 250	FLANGED	125 to 400 mm
	CACT IDONI ECH DED I DDONIZE		EO 1 400

F = Female : M = Male

## 03 SYSTEM with axial guide





NF (French national standard) and antipollution approved in most European countries
 Perfect water tightness at high and low pressures

· Easy to maintain

1/2" diameter bosses with test cock allowing checks and sampling

Inspection cover for checks and replacement of internal parts without dismantling the device

Axial guide at the head of the closing system ensures perfect centring guaranteeing water-tightness under 3 cm of water column whatever the angle of the valve

Water tightness guaranteed

Removable locking system allows the entire closing system to be replaced without special tooling

Return spring allows the device to function in any position

Seat and guide in bronze for anti-corrosion



3 - Remove the whole spring, closing system and seal. If necessary remove the seat by unscrewing

#### 423 RE

by flat seal

#### FOR DISTRIBUTION WITH BOOSTING PUMPS

Drain plug

This non-return valve which is certified by the French NF antipollution

returning to the supply, particularly when sited after the meter. Patent pending. This valve should be chosen wherever perfect watertightness and on-site dismantling are required, together with excellent

mark is designed to protect drinking water systems against polluted water

Diameter 40/50 to 250 mm PN 16 drilled PN 10 (possibility of PN 16 drilling) Can be mounted with 4 holes or 8 holes for 80 mm diameter 40 and 50 diameter bronze casing ; above this cast iron casing FGL 250 Temperature : 90°C

hydraulic performance and little energy loss.



Approved : 🚺 🗿 DVGW 🔽 C E



#### FOR DISTRIBUTION WITH BOOSTING PUMPS

Can also be used in general and sanitary circuits Casing and closing system in brass PN 16 Diameter 1/2" to 2" (threading 3/4 to 2"1/2 male/male) Connection by union nipple Temperature 80°C Approved :



## Headloss chart (Fig. 423)



## The 03

### system range

 223
 BRASS
 THREADED I

 423 RE
 BRONZE OR CAST IRON FGL 250
 FLANGED

 F = Female ; M = Male
 M = Male
 M = Male

 THREADED M/M
 3/4" to 2 1/2"

 FLANGED
 40 to 250 mm



SƏCLA



## 03HP SYSTEM with axial guide



High mechanical and hydraulic performances
 Adapted materials

• Various industrial applications



#### 233 FOR HIGH PRESSURE FLUIDS

Diameter 1/4 up to 2" High pressure check valve in carbon steel and seal in NBR (nitrile) Opening pressure 0,5 bar For high pressure fluids, water, hydrocarbons, gas, general industrial applications... Female/female connection Temperature : 110°C

233X



#### **TECHNICAL INFORMATION**



Α		L	Н	h	Weight
11	mm	mm	mm	mm	kg
1/4	6	73	24	22	0,17
3/8	10	76	30	27	0,28
1/2	15	77	38	32	0,41
3/4	20	92	48	41	0,78
1	25	109	57	50	1,26
1 1/4	32	123	70	65	2,12
1 1/2	40	141	80	70	3,07
2	50	164	100	90	5,54

### The 03 HP system range

 233
 CARBON STEEL

 233X
 STAINLESS STEEL 304

 F = Female ; M = Male

THREADED F/F THREADED F/F 1/4" to 2" 1/4" to 1 1/2"



## FOR HIGH PRESSURE FLUIDS

Diameter 1/4 up to 1 1/2" High pressure check valve in stainless steel AISI 304 and PTFE & FKM seal. Opening pressure 0,5 bar For high pressure fluids, water, hydraocarbons, gas, general industrial applications... Female/female connection Temperature : 230°C



## 05 SYSTEM with double plate (between flanges)



• Excellent hydraulic performance • Wide range : from 50 to 600 mm

• Compact

Watertightness ensured by the spring which pushes against the two plates, maintaining pressure on the valve seat seal

Very little energy loss

Gradual opening controlled by double contact spring

Stainless steel or bronze \_ plates

Vulcanised NBR seal in mouth of the valve seat



Lifting ring for easy positionning pusches against the two plates, maintaining pressure on the valve seat seal

Can be installed horizontally or vertically facing upwards. Can be adapted for different connection types : PN 10 - 16 - 25 - ASA B 16-1 125 Class and ASA B 16-5 150 series

This system is perfectly adapted to installations where limited space is available (NF E 29377) but where excellent hydraulic performance is necessary, and especially where the dimensions are large.



# 05 SYSTEM







۱m
ım
۱m
ım



## 05 SYSTEM with single plate (between flanges)





Installed horizontally or vertically facing upwards





## 05 SYSTEM single plate (with flanges)





CE

 Simple, strong construction Wide range of applications for all kinds of liquids • Effective, reliable operation

Inspection cover for ease

late moves freely without

Closing disc may be

Entire closing system

r otected against corrosion

removed without

special tools.

by NBR

of dismantling

wear





Plate tucked away when open and may be lifted by external screw if required.

405

Diameter 65 to 300 mm

PN 16 standard drilling PN 10,

PN 16 possible Temperature 70°C

Casing in ductile iron FGS 500.7

Length DIN 3202-F6

Plate and hinge entirely coated in NBR (nitrile) Bolts in galvanised steel

- Excellent hydraulic performance because the plate tucks away completely.
- Unrestricted passage out through the valve means that it can be used for all kinds of water including waste and sewage.
- Integral coating of closing system with nitrile NBR guarantees toughness and long life.
- Plate angled at 15 degrees on the valve seat to ensure closure.

## 06 SYSTEM with flanges





• NF (French national standard) and antipollution in most European countries · Perfect water tightness at high and low pressure

Inspection cover for checks and replacement of internal parts without dismantling the device

Stud for moving the cover without need of a particular tool

Padlock

Bayonet system to open the cover rapidly. System patented by Danfoss Socla

Removable locking system allows the entire closing system to be replaced without special tooling

• Easy to maintain

......

Bosses with test cock allowing checks and sampling

Return spring

Axial guide at the head of the closing system

Watertightness guaranteed by flat seal

Drain plug

EA 426

DN 50 to 150 mm PN10. Temperature 65°C

Casing in ductile iron with external and internal epoxy coating equipped with 2 test cocks and 1 drain cock 1/2'

• Axial guide at the head of the closing system ensures perfect centring guaranteeing water tightness under 3 cm of water column whatever the angle of the valve

Bosses with test cock allowing checks and sampling





SOCL

# NON-RETURN VALVES AND FOOT VALVES

## **B SYSTEM with ball**



Straightforward, sturdy design
 Ball moves aside to allow unrestricted flow
 Designed for waste water, viscous water and slurries

Anti-incrustation materials

Self-cleaning ball in specially adapted materials

Very little energy loss (unrestricted flow)



Can be installed horizontaly or verticaly, upwards



Inspection cover for access and maintenance

The closing system consists of a self-cleaning ball which is lifted by the fluid and guided to a lateral housing, completely out of the way.

This system ensures an unrestricted flow, even for liquids carrying waste materials, without risk of a blockage.

This all-purpose range is also suitable for use with aggressive liquids and in industrial processes

#### REGULATION

#### 89/106/CEE DIRECTIVE

(CPD : Construction Product Directive)

Applies to building industry products and especially to their ability to ensure their function during a reasonnable life time from an economical point of view. Building industry products in accordance with appoint of a product of a product

with specific standards are CE marked with indication in (1) of the corresponding construction standard.



SƏCLA

# **B** SYSTEM

## 408/508/50

Diameter 1" to 350 mm PN 10 Casing in cast iron FGL 250 up to 125 mm

and ductile iron FGS 400-15 above 125 mm • **408 :** with flanges diameter 50 to 350 mm, ball coated with NBR/NR (natural rubber), temperature 60°C • **508 :** threaded female/female from 1" to 2<sup>1/2</sup>", ball in synthetic resin, seat in NBR (nitrile)

408

508

In 3" diameter, this valve has no inspection cover (ref 50) Temperature : 60°C

## Approvals : 🏶 C E

#### 408D

#### FOR DRAINAGE SYSTEMS

Equipped with a special system allowing the ball to be lifted by a screw from the valve seat PN : 10 Temperature : 60°C Diameters 80 - 100 - 150 - 200 To allow the release of gases and equilibration of pressure

CE

408X

FOR AGGRESSIVE LIQUIDS

Stainless steel casing Ball and seal FKM coated PN : 10 Temperature : 150°C Approvals : CE

### 408F/508F/50F ANTI FLOODING

Valve with floating ball used to check rising water levels and allowing gases to be released PN : 10 Temperature : 60°C (See installation diagram opposite)



#### 208P

PVC casing (female/female) coated in NBR (nitrile), particularly suitable for drainage systems. PN : 6 Temperature : 60°C Approvals : 🔮 C E



308

#### **308/30** FOR PUMPING WASTE WATER

FOR PLASTIC PIPEWORK

Flanged foot valve of 408 type with galvanised steel strainer. Temperature 60° C. Threaded valve of 508 type with stainless steel strainer PN : 10 Temperature : 60°C

## Installation diagram





Horizontal : The ball lodges above the axis Vertical : pointing upwards

The arrow shows the flow direction

## Movement of the ball





Horizontal : The ball rises above the axis Vertical : The ball rises to the high position

The arrow indicates the direction in which the liquid is rising



## The B

#### system range

#### NON-RETURN VALVES

50	CAST IRON FF	THREADED F/F	1"to 3"
50 F	CAST IRON FF	THREADED F/F	1"to 3"
208 P	PVC	THREADED F/F	11/4 to 2"
408	CAST IRON FT	FLANGED	50 to 350 mm
408 F	CAST IRON	FLANGED	50 to 350 mm
408 X	STAINLESS STEEL	FLANGED	50 to 350 mm
408 Z	BRONZE	FLANGED	50 to 350 mm
508	CAST IRON FGS	THREADED F/F	1" to 3"
FOOT VA	LVES		
308	CAST IRON FGL 250	FLANGED	50 to 350 mm
30	CAST IRON FOL 250	THREADED E/F	1"to 3"

F = Female; M = Male



# NON-RETURN VALVES AND FOOT VALVES

## M SYSTEM with membrane



Noiseless operation (in all positions)
 Protects against water hammering

• Very reliable

Adapts for fluctuant flow rate

No moving mechanical part

Closing system, a flexible membrane which changes shape with the flow, held at its centre on a perforated steel seat

Water tightness ensured by the automatic closure of the membrane

Valve seat, a steel polyamide coated grille allowing flow / equivalent to the nominal cross-section



The thickness and the elasticity of the membrane allow progressive opening and closing, particularly suitable for variable flow pumps and pulsatory operation

Several concentric membranes are used for wide membrane diameters. A thin-membraned version is available for special applications eg gases, vacuums

**The M system** has been conceived for installations susceptible to severe water hammering. It is very reliable and particularly quiet (no moving mechanical part, anti-incrustation closing system).

Perfectly suited for pressure pumps, fire hydrants, engine-driven pump units or electro-pump units and compressed air circuits.







# M SYSTEM



40 to 300 mm 50 to 300 mm 2" to 4

3/8 to 3'

3/8 to 3'

40 to 200 mm

40 to 150 mm

65 to 200 mm

65 to 200 mm

Key :

DEBLT M3/H

Valve completely

Opening phase

open

of valve



# FOOT VALVES

## TJ SYSTEM with tripod axial guiding



Excellent hydraulic performance
 For pumping systems with substantial flow
 Robust and reliable

One-piece casing profiled for excellent hydraulic performance

Cast iron closing system, integrated in the body of the valve to guarantee low energy losses.

Galvanised steel strainer with perforated area equivalent to twice the nominal diameter

Water tightness ensured by flat seal shouldered by the valve head and a valve seat with a collar preventing any impurities from depositing on the valve seat

Designed to function in a vertical position

Tripod shaped axial guide ensures self-centring on the valve seat for water tightness



For clear water pumping systems with substantial flow, requiring large valves, for supply systems, irrigation, industry.



144

Valve with cast iron casing, drilled flange PN 10, guide and valve in cast iron, seal EPDM, strainer in galvanised steel, diameters 200 to 600 mm PN 10 up to 200 ; PN 6 from 280 to 400 PN 4 above this strainer (may be in stainless steel) Temperature : 60°C



The TJ system range

. . . . . . . . . . . . . .

FLANGES 200 to 600 mm



# STRAINERS WITHOUT VALVE



A strainer acts as a sieve in the pumping of water of different qualities; each type of strainer has a different application depending upon the choice of materials used in its construction.





PROTECTION

Y333 FOR PROTECTION OF PUMPS

Y222

Diameter 40 to 300 mm, with flanges PN10 Water filters in cast iron internal/external epoxy coating with strainer in stainless steel For protection of pumps, valves, pressure reducing valve Temperature :  $150^{\circ}$ C CE



ACS WRAS

### FOR PROTECTION OF PUMPS

Diameter 1/2" to 2", female/female Water filters in brass with strainer in stainless steel For protection of pumps, valves, pressure reducing valve Temperature : 110°C



### Y666

#### FOR INDUSTRIAL PROCESS

Diameter 1/4" to 2", female/female Filters in AISI 316 stainless steel. Threaded with purge plug. For industrial process, corrosive liquids, high pressure, high temperature Temperature : 175°C



SƏC



Axial guide system upstream. Stainless steel spring allows valve to work in any position

**The TJO system** because of its outstanding hydraulic performance the TJO system is particularly suitable for use with small diameter check and foot valves (1/4"to 2"diameter). It is available in a large range of materials for applications from domestic water distribution circuits, heating, industrial applications (chemical industry, pharmaceuticals).



# TJO + FL + O4 SYSTEMS

## 290/297

#### Diameter 1/4" to 2" - PN 10 Casing in brass, valve PA in 12 or 11 polyamid, EPDM (290) o-ring seal for distribution in buildings, pumping, water distribution, or seal in FKM (297) for hydrocarbons and industrial fluids ; with two bosses, not drilled. Temperature 80°C ACS



290

297D

290X

1918

290P

190

190)

605

104F

190D

### 290D/297D FOR WATER

#### **OR INDUSTRIAL APPLICATIONS**

Casing in POM (polyacetylene) Other specifications identical to types 290/297



(polypropylene), FKM o-ring
 290X : casing AISI 304 stainless steel, closing system PA 11,12 or Tefzel (on request)
 FKM o-ring
 PN : 10 - Temperature : 80°C

### 209 TWO DRILLED BOSSES

With polyamid plugs allowing control or emptying, other specifications as type 290 PN :10 Temperature : 80°C ACS

#### **190/190D** FOR DOMESTIC PUMPING



#### **190P/190X FOR CORROSIVE PRODUCTS**

Industrial applications and the food industry Foot valves version of type 290 P and 290 X <sup>190P</sup>

- 190 P : strainer in PP
- 190X : strainer in PE

Temperature : 60°C 🛛 🍪

#### **193/193D** FOR THE PUMPING OF HYDROCARBONS

Designed for heating fuel strainer in micromesh PE (polyethylene) Identical to valves 190 and 190D but with FKM seal Temperature : 60°C

#### 60S FOR PUMPING HARD OR AGGRESSIVE WATER

Foot valve with bronze casing and stainless steel strainer connection DN : F 3/4 to 4" casing in POM (polyacetal) 3/4" to 2" casing in bronze 2" 1/2 to 4" PN 16 - Temperature 80°C

#### **104/104P** FOR DOMESTIC PUMPING

Foot valve for domestic pumping • 104 : casing in brass • 104P : casing in PPO (polyphenylene oxide) or POM (polyacetal) Temperature : 65°C

## Many special versions

For your specific application needs, we can propose in the TJO series :

- custom-coiled springs
- casings in different materials
- closing system in Tefzel®
- special seals
- NPT connections

For industrial applications... chemicals... corrosive fluids

## Headloss chart (Type 290)



## TJO + 04

### system range

NON-RE	TURN VALVES			
209	BRASS	THREADED	F/F	1/2 to 2"
290	BRASS	THREADED	F/F	1/4 to 2"
290 D	POM	THREADED	F/F	3/8 to 1"
290 P	PP	THREADED	F/F	3/8 to 3/4"
290 X	STAINLESS STEEL	THREADED	F/F	1/4 to 2"
297	BRASS	THREADED	F/F	1/4 to 2"
297 D	POM	THREADED	F/F	3/8 to 1"
FOOT VA	ALVES			
190	BRASS	THREADED	F	11/2 to 2"
190 D	POM	THREADED	F	3/8 to 2"
190 P	PP	THREADED	F	3/8 to 3/4"
190 X	STAINLESS STEEL	THREADED	F	3/4 to 2"
193	BRASS	THREADED	F	1/2 to 1"1/2
193 D	POM	THREADED	F	3/8 to 1"1/4
104	BRASS	THREADED	F	3/4 to 1"1/4
104 P	PPO or POM	THREADED	F	3/4 to 1"1/4
60 S	BRONZE, STAINLESS STEEL STRAINER	THREADED	F	3/4 to 4"

F = Female; M = Male



## W SYSTEM with disc wafer type



#### • Performs well at high pressure and temperature

• Easy to connect

• Space-saving





SƏCLA

# W SYSTEM

## 812/812X

Diameter 15 to 200 mm PN 6 - 40 Valve casing and closing system in stainless steel - Temperature 370°C available as : 812 with casing in stainless steel AISI 304 812X with casing in stainless steel AISI 316L Closing system in stainless steel 316L up to 100 mm; stainless steel AISI 314 above this

Suitable for steam circuits, the food industry, general circuits and industrial processes.

See CE ACS

802

#### FOR GENERAL CIRCUITS **AND PUMPING**

Diameter 15 to 200 mm PN 6-16 up to 100mm ; 10-16 above this Valve with DZR brass casing from 15 to 50 mm Temperature : 150°C for DN 65 to 200 mm 200°C for others



802

and FGL cast iron above this Closing system in stainless steel 316L up to 100 mm; Cast iron FGL 250 above this available in two versions : • 802L : with EPDM seal for extra water-tightness ; temperature 100°C

• 802 Z : in bronze for high temperatures, salt water and aggressive fluids ; temperature 230°C

#### **∭ C €** ACS

## 802T/812XB/XT/XS FOR INDUSTRIAL CIRCUITS

### AND THE FOOD INDUSTRY

- 802 and 812X versions mounted between flanges :
- T : threaded flanges
- B : flanges butt welded
- S : flanges socket welded

Same applications as 802 and 812X Temperature : 220°C



🦉 C E



812XB



#### 712XT FOR PUMPING SPECIAL FLUIDS

Industrial fluids and the food industry. all-stainless steel foot valve. female connection 15 - 50 mm, same characteristics as 812X Temperature : 220°C

ACS



## **Advantages**

• Valve with a wide range of applications because of its materials and robust construction.

- Pressure ranges PN6 PN 40 covered by some models, reducing the number of versions.
- Easy to install, saves valuable time.

## Headloss chart (Type 802)



## The W

### system range

NON RET	URN VALVES			
802	CAST IRON	BETWEEN FLANGES	15 to 200 mm	
802 L	CAST IRON	BETWEEN FLANGES	15 to 100 mm	
802 Z	BRONZE	BETWEEN FLANGES	15 to 200 mm	
802 T	BRASS	THREADED F/F	15 to 50 mm	
812	STAINLESS STEEL	BETWEEN FLANGES	15 to 200 mm	
812 X	STAINLESS STEEL	BETWEEN FLANGES	15 to 200 mm	
812 XB	STAINLESS STEEL	TO BE BUTT WELDED	15 to 50 mm	
812 XS	STAINLESS STEEL	TO BE SOCKET WELDED	15 to 50 mm	
812 XT	STAINLESS STEEL	THREADED F/F	15 to 50 mm	
882	CAST IRON GS	BETWEEN FLANGES	65 to 250 mm	
FOOT VALVES				
712 XT	STAINLESS STEEL	THREADED	15 to 200 mm	

F = Female ; M = Male



## SOCLA PUTS POWERFUL TOOLS AT YOUR FINGERTIPS

## Socla on the WEB

- Information on request and with follow-up on all products in the range.
- Real-time interactive response : customer-friendly speed of access and fast response time.
- Always envolving, alongside and in anticipation of your needs.
- Local service : throughout the world, but on your doorstep and in your language.
- Contact us on : www.socla.com





### **PRICE-LIST CATALOGUE and PRICE-LIST MANUAL / interactive CD-ROM :** the quickest way to find information and make a decision

- A listing by valve type and range.
- Sums up the advantages of each product.
- Prices clearly indicated.
- Connections, references and approvals.
- Pressures, temperatures etc



## **PRODUCT DATA SHEETS :** to make sure your choice is the best

Most of our valves have their own full and detailed data sheet :

- Product information table (temperature, type of fluid, approvals, etc.).
- Headloss chart.
- Nomenclature with materials specified.
- Dimensions, references and performance.
- Special adaptations.



# Your applications are our inspiration ; consult us !

*Photocopiez, complétez et faxez votre demande spéciale au : 03 85 97 97 42* Customer :

Name :	Department :
Telephon <u>e :</u>	Fax:
Essential criteria :	Installation diagram or description
- Diamete <u>r :</u>	
- Connection type :	
- Maximum pressure :	
- Service pressure :	
- Operating temperature :	
- Nature of fluid :	
- Energy loss :	
- Watertightness :	
- Operating position :	

## **TOGETHER LETS CHOOSE** THE RIGHT VALVE FOR YOU

## There is no universal check valve !

We can help you to choose the right one from a multitude of possibilities. In order to do this we need to define your priorities together.

### 1<sup>st</sup> - The essential given criteria for your installation

- The diameter : in general, this is prescribed. Be careful, it may be prudent to choose a smaller size even if it means fitting a convergent cone ; this can help avoid premature wear and reduce possible water hammer. This is why it is so important to specify minimum and maximum flow rates. Put them down !
- The connection type : flanged or threaded.
- The maximum service pressure : be careful, even if certain of our valves are designed for PN 16, for example, our standard drilling of flanges is PN 10. In this case, from 200 mm diameter, PN 10 and PN 16 drilling are different : please indicate your drilling gauge in all cases. This way we avoid unpleasant surprises !
- The operating temperature range, both average and peak : we will then confirm whether the materials are appropriate.
- The nature of the fluid : we do not recommend a guided closing system for a slurry ! If the fluid is a chemical product, knowing the concentration is vital. Some weak concentrations can be more aggressive than strong ones !

### 2<sup>nd</sup> - The criteria which are most important for you !

- You must not exceed a certain energy loss level ? Indicate as much specifying the flow rate and diameter, we will recommend the right choice.
- You require the highest standards of sealing , tell us so.
- Your valve must fonction at any angle ? Consult our chart on pages 4 and 5.
- More generally speaking, you know that your installation has particular characteristics : variable flow rates, a tendency to pulsate ? Indicate as much.
- You need a special execution ? Describe it to us, giving details of the criteria.
- Your installation seems complicated (peculiar pipework, narrow space, positioning problems ?) A good diagram can sometimes avoid misunderstandings !

### REGULATION

#### 97/23/CE DIRECTIVE : Equipment under presure (PED : Pressure Equipment Directive)

Applies to the design, manufacturing and the assessment of the conformity of pressure equipment, the maximum allowable pressure of which is 0.5 bar. Pressure equipment for water supply, distribution, and disposal of water is excluded. Depending on the type of pressure equipment, maximum allowable temperature (PS), DN, physical nature of the fluid (liquid, gas or vapour) and the degree

of danger of the fluid (group1/2)\*, the directive classifies this same equipment into different categories (article 3.3, I, II, III, IV), required for the assessment

of conformity with CE marking. The equipment defined in article 3.3 of the directive must not bear the CE marking. (') Group 1 : hazardous fluids (directive 67/548/EEC) / explosive / highly flammable /easily flammable / flammable / very toxic / toxic / combustion agents. Group 2 : all other fluids.

In order to facilitate your choice regarding these new regulatory requirements, Socla has put the necessary information concerning products with CE marking, specification sheets and product identification plates at your disposal in the price list (+ see additional explanations on the detachable slip). Important notice : the indicated pressure for the different categories of fluids (L1/L2/G1/G2) is under no condition a guarantee of use. Therefore, it is essential to validate the use of products under given operating conditions. Socla is not responsible for non-adaptation of the products to

working conditions not previously specified by the customer. In addition, the operating instructions are available on our web site www.socla.com or by simple request from our sales department.

### 89/106/CEE DIRECTIVE :

(CPD : Construction Product Directive)

Applies to building industry products and espe-cially to their ability to ensure their function during a reasonnable life time from an economical point of view.

Building industry products in accordance with specific standards are CE marked with indicatio of the corresponding construction standard.

METAL TAG of Socla products :



erial Body	Soc	la		
Figure			Nominal diameter	
Body material			Pressure PFA water	
	Liquid 1/9	Water bar	Pressure PS liquid L1/L2	
	Gac 1/2	/ bar	Pressure PS gas G1/G2	
		/ bui	Flange connection	
			Year of manufacture	
	MADE IN FRANCE		Manufacturing order	

or (









## Socla sas

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> **Working hours** Monday to Thursday 8 a.m. to 5.30 p.m. Friday 8 a.m. to 1.30 p.m.

Socla - Desbordes - Sylax

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