INSTALLATION, OPERATING AND MAINTENANCE MANUAL
In accordance with PED



Series ST101F

SINGLE BASKET STRAINERS

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1.–GENERAL INFORMATION ON THE MANUAL

- This Manual provides information on safely mounting and maintaining the product. Please contact the supplier or the manufacturer in case of problems which cannot be solved by reference to this Manual.
- This Manual is binding for transport, storage, installation, commissioning, operation, maintenance or repair. Manual must be read before commissioning the strainer.
- The notes and warnings must be observed and complied with.
- Handling and all other work must be carried out by specialist personnel, or all the activities must be supervised and inspected.
- It is the owner's responsibility to define areas of responsibility and competence and to monitor the personnel.
- In addition, current regional safety requirements must be always applied and observed, also when decommisioning, maintaining and repairing the strainer.
- Any deviation from this Manual or from usual installation guidelines should be notified to us for recommendation and approval.
- The manufacturer reserves the right to make technical modifications at any time.
- This Manual complies with the requirements of EU Directives.

2. – NOTES ON POSSIBLE DANGERS

2.1 Significance of symbols



ATTENTION!

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Warning of general danger

2.2 Explanatory notes on safety information

In this Manual dangers, risks and items of safety information are highlighted to attract special attention.
Information marked with the symbol above describes practices, which if fail to comply with, can result in serious injury or danger of death for users or third parties or in material damage to the system or the environment. It is vital to comply with these practices and to monitor compliance.
All other information not specifically emphasized, as well as technical data in Data Sheets and product marking, must also be observed and complied with to the fullest extent in order to avoid faults which in turn can cause serious injury to persons or damage to property.

3. – PRESERVATION, STORAGE AND TRANSPORT



ATTENTION!

- Protect against external force (impacts, vibrations, etc.)
- Allow only skilled personnel; suitable handling and lifting equipment must be used. See data sheet for weights or consult manufacturer.
- Check correct position of nameplate and handle with care to avoid personnel cuttings.

- Use proper packing for transportation.
- Keep storage protection before installation.
- In order to prevent damage, corrosion or rust on the surface, avoid extreme temperatures (keep at 5ºC to 50ºC), avoid high environmental humidity or corrosive environment. Keep the strainers away from direct sunlight, dust, flames or rain. Do not pile up excessive weight. In case of severe bumping inspect the material for any damage and replace if necessary.

4. – DESCRIPTION

4.1 General Description. Area of Application. Operating principles

Y-Strainers series are devices for mechanically removing solids from flowing media by means of a wiring mess or perforated basket, cleanable and replaceable in line. They are used to protect from dirt or impurities other equipments such as valves, pumps and other pipeline accessories.
Strainers diagrams with parts can be seen at the last page of the Manual.

4.2 Technical data – remarks

For data such as main features, duties/limits of use, dimensions, weights, etc. refer to data sheet.

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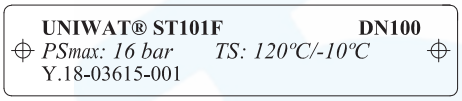
4.3 Marking/nameplate

Nameplate description of the strainer:

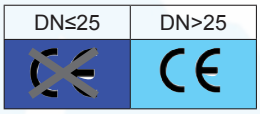
Mark	Description
UNIWAT	Series name
FIG.	Strainer code
Y	Manufacturing year
SN: ZZZZZZZ-N	Batch / Serial no.
S	Strainer size
C	Strainer class
B	Body material
STD	Main manufacturing standard
SC	Screen material
PSmax	Max. pressure
TS	Max. temperature at max. pressure
PS	Max. pressure at max. temperature
TSmax	Max. temperature



Example



CE marking acc. to PED:



5. – INSTALLATION

5.1 General remarks on installation

The following points should be taken into account in addition to the general principles governing installation work:

ATTENTION!

- Remove flange covers or any other remaining packing/storage protection if present.
- The interior of the strainer and the pipeline must be free of foreign particles.
- Follow the arrow in the body for flow direction for installation
- Lay pipelines such that damaging transverse, bending and torsional forces are avoided.
- Protect strainer from dirt during construction work.
- Suitable materials handling and lifting equipment should be used for assembly work. During assembly work, ensure that the strainer is fixed adequately. See data sheet for weights.
- Horizontal installation is recommended, screen basket NEVER upwards. In case of vertical installation, screen basket should point downwards.
For steam systems, condensate accumulation in the strainer must be avoided and correct circulation must be eased. Strainer to be set in horizontal pipe with the basket in horizontal position and pipe system with a slight negative slope.
- You must only operate the unmounted strainer while observing all the safety measures.
- Check correct position of nameplate and handle with care to avoid personnel cuttings.
For flanged strainers, *make sure that counter-flanges are compatible with the standard of the strainer flanges. When matching up flanges, avoid gradients, rotation and pipe misalignment that could cause pipe and strainer stress and leakage once installed. Flanges should fit smoothly. Select the proper flange face gaskets according to duty and centre them on the flange face properly. Do not force the counter-flanges and do not try to tighten the bolts when a gap exists between strainer and pipe or if misalignment is observed. Tighten in a crosswise, moderate and uniform manner.*
For threaded ends strainers,
- Make sure that the pipe screw has the correct finish and compatible cone with the strainer.
- Use proper sealant according to duty, such as hemp core, Teflon, etc.
- Check that pipe introduction in the strainer does not exceed its thread, leave a safety margin of minimum 1 mm.
- Tighten with a plain or adjustable wrench on the hexagon end of the strainer only. Apply force to other area of strainer may seriously damage it. Do not use hook spanners or other wrenches that could damage the hexagon surface. Strainer should be threaded smoothly. If not, do not try to force the thread and avoid wrench extensions since this could lead to break the strainer or damage the thread. A general recommendation is not to exceed the tightening torque of 30Nm.

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5.2 Requirements at the place of installation

- Aggressive environmental conditions may reduce the life span of the product.
- Consider the interaction between the system and the equipment. Foresee elements to absorb vibrations, pipe dilatations, guides, anchoring and proper support according to the weight of the components.
- The system and operation protocol should be conceived in such a way to avoid high velocities and cavitation. Prevent pulsing flow or water hammers, which are very harmful for strainers and the rest of the components.
- Flooding of the product is not recommended.
- Allow enough space for strainer installation, operation and maintenance.
- Planners / construction companies or the owner are responsible for positioning and installing products.

6. – COMMISSIONING

ATTENTION!

- Before commissioning the strainer, check the material, pressure, temperature, flow direction and other essential parameters. Always use the product within the scope of intended service and operating duties.
- Before commissioning, make sure above chapters have been throughly followed.
- It is essential to flush the pipe system thoroughly to eliminate all the particles and impurities which could remain in the pipes and particularly welding residue, chips, tool remains, etc. that could damage the equipment during start- up. Ensure that during cleaning of the pipe system, any chemicals used and temperature are compatible with the strainer construction.
- Regional safety instructions should be adhered to.
- Temperatures above 50ºC or below 0ºC may cause personnel injuries if strainers are touched. Ensure that the corresponding warning signs are displayed on the strainer or surrounding area, or isolate the equipment in case of danger.

- Before commissioning a new plant or restarting it after repairs or modification, always ensure that:
- All work has been completed correctly!
- The strainer is in the correct position for its function.
- Safety devices have been attached!

- Ensure strainer surface is in good condition and retouch coating protection if any when needed.
- Strainer operation, filling, warming-up and starting-up shall be gradual so as to avoid any inadmissible stress. Check for tightness in strainer connections and body/cover union retighten crosswise and gradually if necessary until leakage elimination.

7. – CARE AND MAINTENANCE

The operator must define maintenance and maintenance-intervals to meet requirements.
- Check for body tightness.

ATTENTION!

- Before disassembling the strainer, note chapters 10 & 11.
- Only carry out maintenance work in the pipework when the strainer has been secured from operation.
- Check correct position of nameplate and handle with care to avoid personnel cuttings.

- Check the strainer surface inside and outside. Keep strainer surface is in good condition and retouch coating protection if any when needed. If advanced corrosion or erosion is observed, double check service and strainer features and replace the strainer properly.
- If there is leakage through unions, refer to Chapters 5 & 6.
- Depending on the degree of dirt accumulation in the system, the basket must be cleaned after a specific number of service hours. Strainer's basket or screen must be extracted and cleaned when clogging becomes apparent. Basket can be easily extracted by removing cover after loosening cover bolts.
- Once the basket is cleaned with compressed air or another method, clean gasket seat surface and insert a new gasket. Then tighten the cover bolts evenly crosswise with uniform torque.

After any maintenance work please refer to chapters 5 and 6 for installation / commissioning.

Recommended Spare parts:
Use only original spare parts.
Type and number of each spare part to be stored according to many factors: service level, strainers quantity, etc. As a general recommendation: 1 spare screen and 4 gaskets for 2 years operation.

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8. – TROUBLESHOOTING

In the event of malfunction or faulty operating performance, check that the installation and adjustment work has been carried out and completed in accordance with this Manual.

ATTENTION!

- It is essential that the safety regulations are observed when identifying faults.

9. – TROUBLESHOOTING TABLE

ATTENTION!

- Read chapters 10 & 11 before carrying out installation and repair work!
- Read chapter 6 before recommissioning!

FAULT	POSSIBLE CAUSE	CORRECTING MEASURES
No flow Not enough flow	Flange covers not removed	Remove flange covers
	Strainer clogged	Clean/replace screen
	Piping clogged	Check piping system
Broken flange	Bolts not properly tightened Mating flanges not properly aligned	Re-align piping and fit new strainer
Deformated basket	Vacuum service or water hammer	Re-check system design and operation and use reinforced screens
Leakage between body and cover	Cover bolts loosen or gasket damaged	Retighten cover bolts or change gasket

Technical support always available through our website www.comeval.es or your local distributor.

10. – DISMANTLING THE STRAINER

ATTENTION!

The following points must be observed:
- Pressureless pipe system
- Medium must be cool
- Plant must be drained
- Purge pipe systems in case of toxic, corrosive, flammable or caustic media

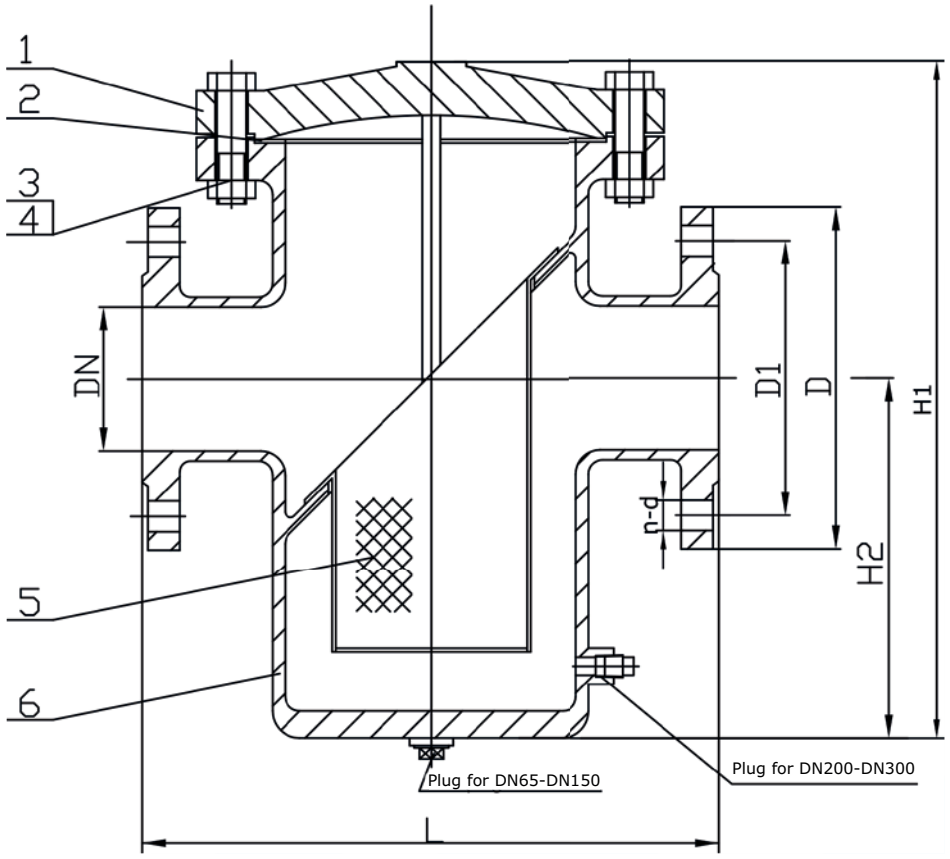
11. – WARRANTY / GUARANTEE

- The extent and period of warranty cover are specified in the “General Sales Terms” of COMEVAL VALVE SYSTEMS valid at the time of delivery or, by way of departure, in the contract of sale itself.
- We guarantee freedom of faults in compliance with state-of-the-art technology and the confirmed application.
- No warranty claims are accepted for any damage caused as the result of incorrect handling or disregard of operating and installation instructions, datasheets and relevant regulations.
- This warranty also does not cover any damage which occurs during operation under conditions deviating from those laid down by specifications or other agreements.
- Justified complaints will be eliminated by repair carried out by us or by a specialist appointed by us.
- No claims will be accepted beyond the scope of this warranty. The right to replacement delivery is excluded.
- The warranty shall not cover maintenance work.
- Our guarantee coverage does not cover for any commissioning, maintenance or installation of the product or external parts.
- Our guarantee does not cover products proved to have been tampered with or faulted by material wear and tear.
- The Purchaser is responsible for checking that the incoming product is received in good condition and conforms to the ordered specifications. In case of damage caused during transit it is necessary to immediately complain to the carrier within 24 hours. After this time carriers could not assume the derived costs. In case of any deviation in relation to order specifications, please contact us.

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12. – PARTS LIST



Nº	PART
1	COVER
2	GASKET
3	BOLT
4	NUT
5	SCREEN
6	BODY
7	DRAIN PLUG

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