INSTALLATION, OPERATING AND MAINTENANCE MANUAL



UNIWAT® 630W

Y-STRAINERS

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1. GENERAL INFORMATION ON THE MANUAL

- This Manual provides information on safely using the product, being binding for preservation, storage, handling, transport, installation, commissioning, operation, maintenance, repair and disposal, and must be thoroughly observed at any step.
- Please contact the supplier or the manufacturer in case of issues which cannot be solved by reference to this Manual.
- Any deviation from this Manual and sound engineering practice or modification on the product shall be notified to manufacturer for advice or approval.
- In addition, regional safety requirements must be always applied and observed at any step.
- All the work related to the product must be carried out, supervised and inspected by specialist personnel. It is the owner's responsibility to define areas of responsibility and competence and to ensure the proper monitoring.
- This Manual is in accordance with Directive 2014/68/EU on Pressure Equipment (PED).
- The manufacturer reserves the right to make technical modifications at any time.

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.
The rest of information not specifically emphasized in this Manual, along with Data Sheet and product marking, must also be observed and complied with for safely using the product.

3. PRESERVATION, STORAGE, HANDLING 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.
- Always use suitable protection equipment, and minimize the use of human body force at any step to avoid injuries.
- There is a risk of body member (hand, finger, arm…) crushed against any other solid element (wall, pipe, floor, etc.) during handling. Take this into account and handle with care.
- Check correct position of nameplate and handle with care to avoid personnel cuttings.

- Use proper packing for transportation.
- Keep storage protection before installation.
- Strainers are protected with epoxy paint protection. 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

630W Y-Strainers are devices for mechanically removing solids from flowing media by means of a perforated basket (screen), cleanable and replaceable in line. They are used to protect from dirt or impurities other equipments such as valves, pumps and other pipeline accessories.
Diagram with parts can be seen at the last page of the Manual.

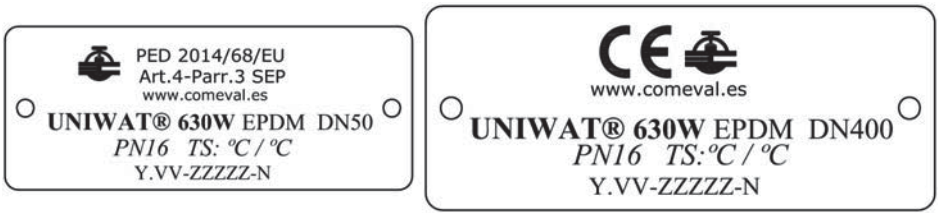
4.2 Technical data - remarks

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

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4.3 Marking/nameplate

Nameplate description of the strainer:



Mark	Description
CE	CE-Marking
	Manufacturer logo
SEP	Sound Engineering Practice
www.comeval.es	Website of manufacturer
UNIWAT®	Brand
PED 2014/68/EU	Directive 2014/68/EU
630W	Strainer code
EPDM	Gasket Material (EPDM, NBR)
TS	Min. / max. temperature
Y.VV	Manufacturing year (Y.16 = 2016)
ZZZZZ-N	Batch / Serial no.
PN	Nominal pressure (Max. pressure in bar)
DN	Nominal diameter

4.4 CE marking. Intended use acc. to PED

PS	DN ≤300	DN 350-600
10		
16		CE

Liquids of group 2* compatible with materials of construction, acc. to Directive 2014/68/EU, Annex II table 9 up to category I

** Classification of fluids group 2 acc. to Directive 2014/68/EU, Article 13.*

Check product selection, material compatibility, pressure and temperature limits and other essential parameters. Ensure proper safety devices/measures are implemented to prevent exceeding intended use of the product. Contact the manufacturer for advice in case of pressure tests exceeding the intended use. Refer to Data Sheet and consult the manufacturer for further information.

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!

- Before installation, make sure previous chapters are thoroughly followed.
- Ensure safe access and working conditions for proper performance.
- Observe all applicable safety measures during installation.
- Remove flange covers or any other remaining packing/storage protection if present.
- Lay pipelines such that damaging transverse, bending and torsional forces are avoided.
- Protect strainer from dirt during construction work. 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. Horizontal installation with basket downwards is recommended, screen basket NEVER upwards. In case of vertical installation, screen basket should point downwards.
- In case of installation at the suction side of pumps, under vacuum conditions, possible turbulences, high velocities or water hammers, please consult us for special reinforced screens (basket).
- When installing the strainer, there is a crushing hazard between strainer and pipe system. Mind the hands to avoid it.
- ASSEMBLY: Make sure that counterflanges 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 counterflanges 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. During start-up tighten again if leakage is noticed or replace gasket if necessary.

5.2 Requirements at the place of installation

- Aggressive environmental conditions may reduce the life span of the product. Consider special construction/protective measures in such a case.
- 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. 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.

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6. COMMISSIONING & OPERATION



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 previous chapters have been thoroughly followed.
- Regional safety instructions should be adhered to.
- 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.
- Temperatures above 50ºC or below 0ºC may cause personnel injuries if strainers are touched.
- Leakage of media through strainer or between counterflanges may also cause scalding, health harm, pollution, fire or damage to other parts of the installation depending on the media. Use suitable protection equipment when approaching the strainer, ensure that the corresponding warning signs are displayed on the strainer or surrounding area, and/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/measures have been implemented.
- The filling, warming-up and starting-up of the system shall be gradual so as to avoid any inadmissible stress. Check for tightness in strainer connections and body/cover union, and retighten crosswise and gradually if necessary until leakage elimination.

- Ensure strainer surface is in good condition and retouch coating protection when needed.
- In case of risk of media freezing inside the strainer, take due measures to avoid it.

7. CARE AND MAINTENANCE

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



ATTENTION!

- Before disassembling the strainer, note chapters 3, 10 & 12.
- Only carry out maintenance work in the pipework when all safety measures have been taken.
- Check the strainer surface inside and outside and retouch coating protection 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 screen (04) must be cleaned after a specific number of service hours. It must be extracted and cleaned when clogging becomes apparent. It can be easily extracted by removing cover (02) after loosening cover bolting (05).
- 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.

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.

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9. TROUBLESHOOTING TABLE

ATTENTION!

- Read the complete Manual 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	Re-align piping and fit new strainer
	Mating flanges not properly aligned	
Screen deformed or damaged	Vacuum conditions	Check the system and install a special reinforced screen Clean the screen often to avoid clogging of the system
	Installation at suction side of a pump	
	Turbulences	
	High velocity	
	Water hammer	
Leakage between body and cover	Cover bolts loosened 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.
- Note chapter 3 for proper handling and lifting.
- Additionally, in case of toxic, corrosive, flammable or caustic media:
- Purge pipe system carefully.
- Use proper protection equipment to avoid health harm.
- Adopt proper actions to avoid pollution of the environment.

11. GOODS RETURN & DISPOSAL

- For any returned goods, the issuing company must provide information in written on any hazards and the precaution in case of potentially polluting or harmful residues, or any mechanical damage that could present a health, safety or environmental risk, as enforced by EU Health, Safety and Environment Law, including the Safety Data Sheet of the substances identified as potentially hazardous.
- Strainers are recyclable and not expected hazard to the environment, with the exception of soft parts (PTFE and rubber compounds) that should be disposed separately only by approved procedure, and no incineration is permitted.

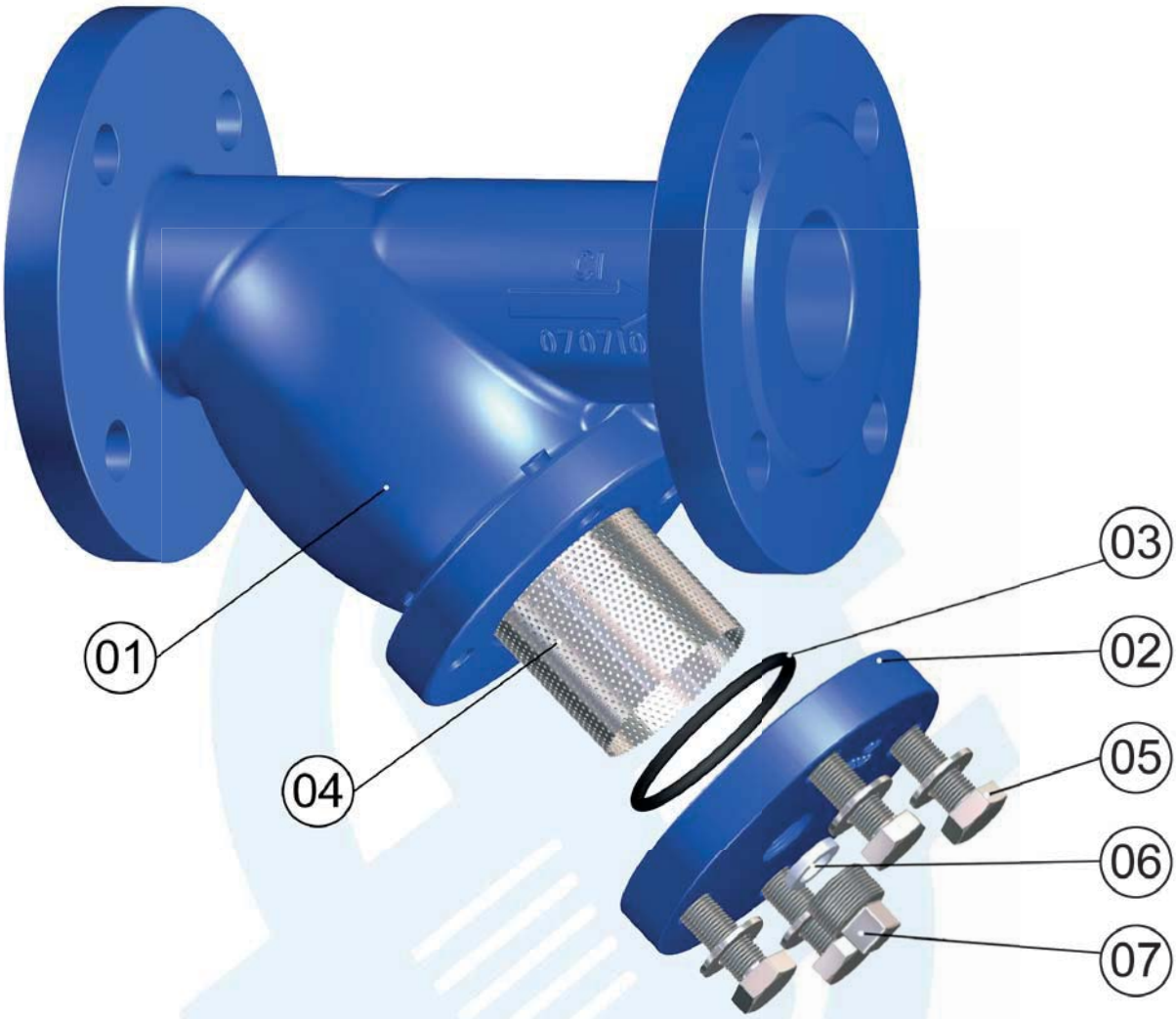
12. WARRANTY / GUARANTEE

- 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 this Manual, Data Sheet 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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13. PARTS LIST



Nº	PART
01	Body
02	Cover
03	Gasket
04	Screen (basket)
05	Studs-nuts
06	Draining plug gasket (option)
07	Draining plug

14. ANNEXES

14.1 Declaration of Conformity - DC07EN
14.2 Data Sheet - DS07

Updated documents on www.comeval.es

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