Globe United

INDUSTRIAL FLOW CONTROL SOLUTIONS
United Arab Emirates

INSTALLATION, OPERATION & MAINTENANCE MANUAL

Basket Strainers

Simplex & Duplex Type — Flanged, Fabricated and Cast Construction

Document No.
GU-IOM-BS-001

Revision
02 — July 2026

Size Range
DN 15 – DN 600 (½″ – 24″)

Pressure Classes
ASME 150 / 300 — PN 10 / 16 / 25 / 40

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Document Control and Revision History

Rev.	Date	Description of Change	Approved By
00	March 2025	Initial release for general distribution.	Engineering Dept.
01	November 2025	Added duplex changeover procedure; expanded torque tables.	Engineering Dept.
02	July 2026	Updated troubleshooting guide, spare parts policy and standards references.	Engineering Dept.

READ BEFORE INSTALLATION OR OPERATION

Failure to read, understand and follow the instructions in this manual before installing, operating or servicing the equipment may result in serious personal injury, death or property damage, and will void the product warranty. Retain this manual for the service life of the equipment and ensure it is available to all personnel working on the strainer.

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1 Introduction

1.1 About This Manual

This manual provides comprehensive instructions for the receiving, handling, storage, installation, commissioning, operation, maintenance and troubleshooting of **Globe United FZE simplex and duplex basket strainers** in flanged, fabricated and cast construction, covering the size range DN 15 to DN 600 (½″ to 24″) in ASME Class 150/300 and PN 10/16/25/40 pressure ratings. It is intended for use by qualified engineers, pipefitters, operators and maintenance technicians who are familiar with industrial piping systems and the safety practices applicable to pressurised equipment.

The instructions herein represent good engineering practice for the majority of installations. They do not replace, and must always be read in conjunction with, the project-specific documentation supplied with each order — including the general arrangement drawing, data sheet, material certificates and any special operating instructions. Where a conflict exists between this manual and the order-specific documentation, the order-specific documentation shall govern. For any condition not covered by this manual, contact Globe United FZE before proceeding.

1.2 Product Description

A basket strainer is a pipeline-mounted mechanical filtration device designed to remove and retain unwanted solids — such as pipe scale, weld slag, sand, rust and process debris — from a flowing liquid. Its purpose is to protect sensitive downstream equipment including pumps, compressors, control valves, flow meters, spray nozzles, heat exchangers and steam traps from damage, erosion and blockage caused by entrained particulate matter.

The heart of the strainer is a removable cylindrical **basket element**, manufactured from perforated stainless steel sheet and optionally lined with a finer wire mesh. Process fluid enters the strainer body through the inlet connection, is directed downward into the open top of the basket, and passes radially outward through the perforated basket wall to the outlet. Solids larger than the perforation or mesh opening are retained inside the basket, where they accumulate until removed during routine cleaning. Because the basket collects debris within a deep, high-capacity vessel, basket strainers offer a substantially greater dirt-holding capacity and a lower clean pressure drop than equivalent Y-type strainers, making them the preferred choice for services with high debris loading or where extended intervals between cleanings are required.

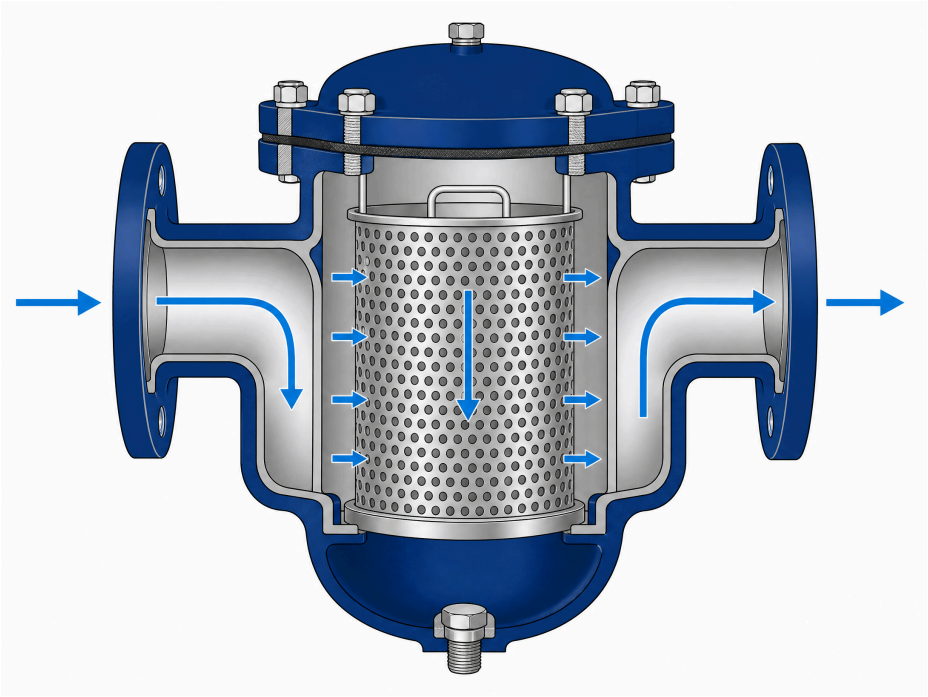

Figure 1: Cross-section of a Globe United simplex basket strainer showing the flow path through the basket element.

Globe United basket strainers are supplied in two principal configurations. The **simplex** strainer employs a single basket chamber and is used where the line can be briefly shut down for basket cleaning. The **duplex** strainer comprises two parallel basket chambers with an integral changeover valve, allowing flow to be diverted to one chamber while the other is opened and cleaned — providing uninterrupted filtration for continuous processes.

1.3 Typical Applications

Basket strainers from Globe United FZE are in service across a wide range of industries in the Middle East and internationally. Typical applications include cooling water and seawater intake protection, pump suction protection in water treatment and desalination plants, protection of heat exchangers and condensers in district cooling networks, fuel and lubrication oil conditioning, chemical and petrochemical process streams, irrigation and raw water systems, fire water networks, and marine and offshore piping systems.

1.4 Nameplate and Product Identification

Every strainer is fitted with a corrosion-resistant nameplate securely attached to the body or cover. The nameplate records the model number, nominal size, serial number, body material, maximum allowable working pressure and temperature, basket perforation/mesh specification, applicable design code and the month and year of manufacture. Always quote the **serial number** and **model number** when contacting Globe United FZE regarding spare parts, service or warranty matters. Never remove, paint over or deface the nameplate.

2 Safety Information

2.1 General Safety Precautions

The basket strainer is a pressure-containing component. All work on the strainer must be planned and executed with the same discipline applied to any other item of pressurised plant. The instructions below are minimum requirements; they supplement, and never replace, the owner's site safety procedures, permit-to-work systems and applicable national regulations.

⚠ PRESSURISED EQUIPMENT — RISK OF DEATH OR SERIOUS INJURY

Never loosen the cover, drain plug, vent plug or any bolted joint while the strainer is pressurised. The strainer must be fully isolated, depressurised to atmospheric pressure and drained before any component is disturbed. A cover released under pressure can be ejected with lethal force and can release a high-energy jet of process fluid.

⚠ HAZARDOUS MEDIA

Where the strainer handles fluids that are hot, cold, flammable, toxic, corrosive or otherwise hazardous, consult the Safety Data Sheet (SDS) for the medium before starting work. Vent and drain discharges must be piped to a safe collection point. Wear the personal protective equipment (PPE) prescribed by the site for the medium concerned — as a minimum: safety glasses or face shield, chemical- or heat-resistant gloves, safety footwear and overalls.

⚠ HOT SURFACES

In services above 50 °C the strainer body, cover and adjacent piping present a burn hazard. Allow the equipment to cool before working on it, or wear appropriate thermal PPE. Fluids above 50 °C (120 °F) must be drained to a safe, contained location — never onto the floor or towards personnel.

⚠ HEAVY COMPONENTS

Strainer covers and baskets on large units are heavy. Use certified lifting equipment and the lifting points provided (eye bolts, davits or lugs) when handling covers on strainers DN 150 (6″) and larger. Never stand beneath a suspended cover or basket.

2.2 Qualification of Personnel

Installation, commissioning, inspection and maintenance must be performed only by personnel who are trained and competent in industrial piping work, who have read and understood this manual, and who are authorised under the site's permit-to-work system. Work on strainers in hazardous-area (ATEX/IECEx) classified locations must additionally comply with the applicable explosion-protection regulations.

2.3 Safe Working Practice Summary

Before any intervention on the strainer, the following minimum sequence must be confirmed: the strainer is isolated from all pressure sources by closed and secured (locked/tagged) isolation valves; the internal pressure has been relieved through the vent connection; the body has been drained

through the drain connection; the temperature of the equipment permits safe handling; and the correct PPE for the process medium is being worn. Only when all of these conditions are satisfied may the cover be opened.

3 Design Features and Technical Data

3.1 Construction

Globe United basket strainers comprise a robust pressure-retaining **body** with flanged inlet and outlet connections, a bolted or quick-opening **cover** sealed by a gasket or O-ring, a removable **basket element** seated on a machined internal seat, a bottom **drain connection** for depressurising and flushing the sump, and a **vent connection** in the cover for air release during filling. Flange dimensions and drilling conform to ASME B16.5 or EN 1092-1 as specified at order. Optional features include differential-pressure gauge tappings, magnetic inserts for ferrous debris capture, steam jackets, davit-assisted covers for large sizes, and special surface preparation or coating systems for corrosive environments.

Figure 2: Stainless steel basket element with perforated wall, mesh lining and lifting handle.

3.2 Materials of Construction

Component	Standard Option	Stainless Option	Special Options
Body & cover	Cast carbon steel ASTM A216 WCB / fabricated A106-B / A105	ASTM A351 CF8 / CF8M (SS 304 / 316)	Duplex SS, bronze B62, cast iron A126-B*, GRP-lined
Basket element	SS 304 perforated sheet	SS 316 / 316L perforated sheet	Monel, duplex SS, special mesh linings
Cover gasket	Non-asbestos compressed fibre	PTFE / spiral-wound SS-graphite	Viton, EPDM, Buna-N O-rings
Fasteners	ASTM A193 B7 / A194 2H	A193 B8 / B8M	Coated or exotic alloys on request

*Table 1: Standard materials of construction. *Cast iron limited to non-shock, non-hazardous services.*

The materials of construction for each order are stated on the strainer data sheet and nameplate. Verify chemical compatibility of all wetted materials — body, basket, gasket and fasteners — with

the process medium, including consideration of trace contaminants, cleaning chemicals and upset conditions, before placing the strainer in service.

3.3 Pressure–Temperature Ratings

The maximum allowable working pressure of the strainer is a function of the body material, flange class and operating temperature, in accordance with the pressure–temperature tables of ASME B16.5 (or EN 1092-1 for PN-rated units). Representative limits for common configurations are given below; the nameplate values always govern.

Body / Class	Rating at 38 °C	Rating at 200 °C	Max. Temperature
WCB — ASME 150	19.6 bar	13.8 bar	425 °C (derated)
WCB — ASME 300	51.1 bar	43.8 bar	425 °C (derated)
CF8M — ASME 150	19.0 bar	13.2 bar	538 °C (derated)
CF8M — ASME 300	49.6 bar	39.8 bar	538 °C (derated)

Table 2: Representative pressure–temperature ratings per ASME B16.5. Gasket and trim selections may impose lower limits.

> ⚠ **BASKET DIFFERENTIAL PRESSURE LIMIT**
>
> The basket element is **not** rated for the full body working pressure. A completely blinded basket is exposed to the full pump differential and can collapse, releasing all collected debris downstream. Do not allow the differential pressure across the basket to exceed **1.4 bar (20 psi)** unless a high-collapse-rated basket has been specified for the order.

3.4 Basket Perforation and Mesh Selection

The basket opening should be selected so that it is slightly smaller than the smallest particle that must be removed to protect the downstream equipment, while remaining as large as practicable to maximise the interval between cleanings. Standard perforations are 0.8 mm, 1.6 mm, 3.0 mm and 6.0 mm; finer filtration from 100 mesh (150 µm) down to 20 mesh (840 µm) is achieved with wire mesh linings supported on a perforated backing. Open-area ratio (basket free area to pipe cross-sectional area) is a minimum of 4:1 on standard designs, ensuring a low clean pressure drop.

4 Selection and Sizing Considerations

Correct application engineering is the foundation of reliable strainer performance. A strainer must be sized for the **duty**, not merely matched to the pipeline diameter. The following factors must be confirmed at the selection stage and re-verified whenever the process conditions change.

The design pressure and temperature of the system, including transients such as pump shut-off head, surge and steam-out conditions, must fall within the nameplate rating of the strainer. The chemical nature of the medium — including its corrosivity, abrasiveness, viscosity and cleanliness — determines the body and basket materials and the perforation size. The expected debris size and loading rate determine the basket open area and the cleaning interval; heavily fouled services may warrant an oversized body or a duplex configuration. The acceptable pressure drop across the strainer at design flow must be checked against the published flow coefficient (Cv/Kv) for the model, corrected for viscosity where the medium is more viscous than water. Finally, the physical

installation must be considered: whether flow can be interrupted for cleaning (simplex) or not (duplex), the space available above the cover for basket withdrawal, and the accessibility of the drain and vent connections.

APPLICATION REVIEW SERVICE

Globe United FZE offers a free application review for critical or unusual services — including high-viscosity media, slurries, gases and vacuum duty. Send your process data sheet to info@globeunitedae.com and our engineers will confirm the optimum size, configuration and basket specification.

5 Receiving, Handling and Storage

5.1 Receiving Inspection

On receipt of the equipment, inspect the shipping crate and the strainer for any evidence of transit damage **before** signing the delivery documents. If damage is observed, note it on the carrier's delivery receipt, photograph it, request that the carrier's representative be present for a joint inspection, and file a claim with the carrier immediately. Verify the goods received against the packing list and confirm that the nameplate data (model, size, materials, rating) matches the purchase order and the intended service conditions. Report any discrepancy to Globe United FZE within seven days of receipt.

5.2 Handling

Small strainers may be handled manually using safe manual-handling techniques. Strainers of DN 150 (6″) and above, and any unit too heavy to lift comfortably by hand, must be handled with certified lifting equipment attached to the lifting lugs or eye bolts provided. Never lift the strainer by its branch connections, cover eye nuts, drain plug or nameplate, and never subject the flange faces to impact. Keep the flange protectors in place until immediately before installation.

5.3 Storage

If the strainer is not installed immediately, store it indoors in a clean, dry environment at a reasonably constant temperature, resting on timber bearers clear of the ground. Keep all flange protectors and plastic plugs in place to prevent ingress of dirt and moisture. For storage exceeding six months, place desiccant bags inside the body, seal all openings, inspect every three months, and renew the desiccant as required. Machined surfaces on carbon steel units should be protected with a suitable rust preventative. Retain the original packaging in case reshipment is necessary.

6 Installation

6.1 Pre-Installation Checks

Before installing the strainer, confirm each of the following points. The strainer rating stamped on the nameplate must equal or exceed the maximum operating pressure and temperature of the system, including transient conditions. The materials of construction must be chemically compatible with the process medium. Remove the cover, withdraw the basket, and inspect the interior of the body for foreign objects, packing materials or moisture; wipe the gasket seating surfaces

clean and verify that the basket and its seat are undamaged. Re-seat the basket squarely, fit the gasket correctly and refit the cover. Finally, flush the upstream pipework thoroughly to remove construction debris — the largest debris load a strainer ever sees is usually during the first days after construction.

6.2 Location and Orientation

Install simplex basket strainers in **horizontal pipelines only**, with the cover facing vertically upward and the body hanging below the pipe centreline. This orientation ensures the basket hangs vertically, allows collected solids to settle into the basket, and permits the basket to be withdrawn vertically through the cover opening. The preferred location is on the **suction side of the pump** or immediately upstream of the equipment being protected, as close to that equipment as practicable, in a position where the cover, vent and drain are safely accessible for routine cleaning — ideally at grade or platform level, with sufficient clear height above the cover to withdraw the basket completely (as a minimum, the basket length plus 150 mm).

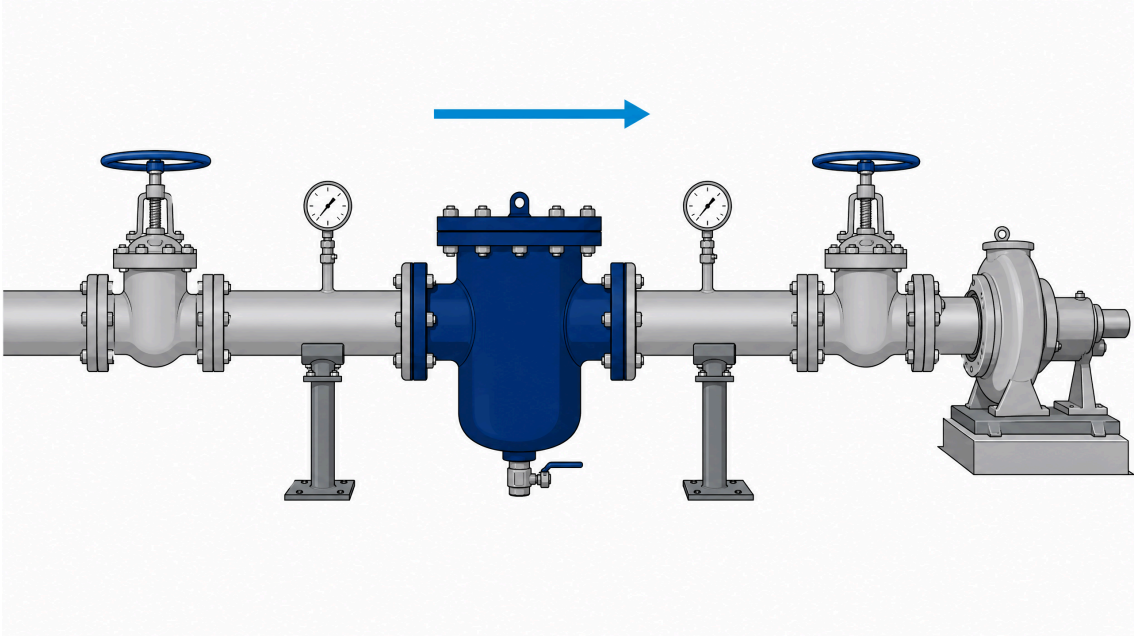

Figure 3: Recommended installation arrangement: upstream and downstream isolation valves, pressure gauges either side of the strainer, drain valve fitted, and adequate pipe supports.

6.3 Piping Requirements

The pipework must be aligned and independently supported so that the strainer carries no piping loads. Never use the strainer flange bolting to pull misaligned piping into place, and never use the strainer body as an anchor or support for adjacent piping — externally imposed bending and torsional loads can distort the body, unseat the basket and cause flange leakage. Provide pipe supports adjacent to the inlet and outlet connections; strainers DN 150 (6″) and larger should additionally bear on a foundation, saddle or support legs where provided.

Confirm that the **flow direction arrow** cast or marked on the body agrees with the actual direction of flow. Install isolation valves immediately upstream and downstream of the strainer so that it can be taken out of service for cleaning, and fit pressure gauges (or a differential pressure gauge/transmitter) in the tappings provided or in the adjacent pipework — differential pressure indication

is the only reliable means of knowing when the basket requires cleaning. Where the strainer is installed on the discharge of a positive-displacement pump, a relief valve must be installed between the pump and the strainer. Pipe the drain and vent connections to a safe collection point through valves of appropriate rating.

6.4 Flange Assembly and Bolt Tightening

Use new gaskets of the correct type, dimension and material for each flanged joint — standard practice is 1.5 mm (1/16″) or 3 mm (1/8″) thick gaskets to ASME B16.21 dimensions, compatible with the flange facing (raised face to raised face, flat face to flat face). Ensure flange faces are clean, dry and free of radial score marks. Lubricate bolt threads and nut faces with a suitable thread compound, fit all bolts hand-tight, then tighten progressively in a minimum of three passes (30%, 60%, 100% of final torque) following a **criss-cross (star) pattern** as illustrated below, in accordance with ASME PCC-1 practice. Do not over-torque, as this can crush the gasket or crack cast flanges.

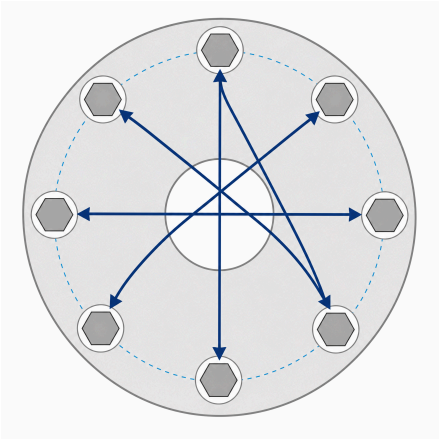

Figure 4: Criss-cross (star) bolt tightening sequence for flanged joints and strainer covers.

Strainer Size	Cover Bolt Size (typ.)	Cover Bolt Torque
DN 15 – 25 (½″ – 1″)	M10 / ⅜″	7 – 34 N·m (5 – 25 ft·lbf)
DN 32 – 50 (1¼″ – 2″)	M12 / ½″	20 – 68 N·m (15 – 50 ft·lbf)
DN 65 – 100 (2½″ – 4″)	M16 / ⅝″	41 – 88 N·m (30 – 65 ft·lbf)
DN 150 – 200 (6″ – 8″)	M20 / ¾″	61 – 129 N·m (45 – 95 ft·lbf)
DN 250 – 450 (10″ – 18″)	M24 / 1″	75 – 149 N·m (55 – 110 ft·lbf)

Table 3: Typical cover bolt torque ranges. Always confirm against the order-specific data sheet; gasket type governs the final value.

6.5 Post-Installation Hydrostatic Test

Where the piping system is to be hydrostatically tested, the strainer may be included in the test at a pressure not exceeding 1.5 times its nameplate rating at ambient temperature. Remove fine mesh liners before flushing operations that could load the basket heavily with construction debris, and inspect and clean the basket after the test and initial flush, before the system is placed in normal service.

7 Commissioning and Operation

7.1 Initial Start-Up Procedure

Start-up is the most demanding period in the life of a strainer: construction debris, pipe scale and jointing compounds arrive at the basket rapidly, and hydraulic shock from fast valve operation can damage both the basket and the piping. Bring the system into service slowly and deliberately, following the sequence below.

1. **Verify readiness**
   Confirm that the basket is installed and correctly seated, the cover gasket is in good condition, the cover bolts are torqued in a criss-cross pattern, and the drain valve or plug is closed. Confirm isolation valves are closed and gauges are in service.

2. **Vent trapped air**
   Open the vent valve (or slacken the vent plug) on the cover. Crack open the upstream isolation valve slowly to admit fluid and displace air through the vent. Fluids hotter than 50 °C (120 °F) or other than clean water must be vented to a safe, contained location. Close the vent when a steady stream of liquid, free of air, emerges.

3. **Establish flow gradually**
   Open the downstream isolation valve fully. Then open the upstream isolation valve gradually to approximately 25% of service flow, checking for leakage at the cover and flanges. Never open valves abruptly — rapid valve operation causes water hammer that can collapse the basket and strain the piping.

4. **Raise to full flow and record baseline**
   Increase to full service flow. Re-check for leaks, then record the **clean differential pressure** across the strainer at normal flow. This baseline reading is the reference against which basket fouling will be judged throughout the life of the installation.

> **EARLY CLEANING AFTER START-UP**
>
> Inspect and clean the basket within the first 24–48 hours of initial operation, and again after any upstream construction, maintenance or process upset. Debris loading during commissioning is typically many times higher than during steady operation.

7.2 Normal Operation and Monitoring

During normal operation the strainer requires no operator intervention other than periodic monitoring of the differential pressure. Log the differential pressure at least once per shift, or continuously via a DP transmitter with an alarm where fitted. Plan basket cleaning when the differential pressure rises **0.35 – 0.7 bar (5 – 10 psi)** above the clean baseline. Never permit the differential pressure to exceed **1.4 bar (20 psi)**: beyond this point the basket may distort or collapse, releasing the collected debris into the very equipment the strainer is protecting.

Avoid sustained operation at flows significantly above the design rate, rapid cycling of upstream valves, and flow reversal through the strainer, all of which can unseat or damage the basket. If

freezing conditions are possible while the line is idle, drain the strainer body via the bottom drain connection.

7.3 Duplex Strainer Changeover

For duplex units, transfer flow to the standby chamber **before** the working basket approaches its differential-pressure limit. Fill and vent the standby chamber through its vent connection until liquid-solid, then move the changeover handle smoothly and without pause through its full travel to divert flow — the transfer mechanism is designed so that flow is never fully interrupted. Once flow is established through the standby chamber, verify by the pressure gauges, then isolate, depressurise, drain and clean the off-line chamber following the procedure in Section 8.2. Leave the cleaned chamber filled and vented where practicable, ready for the next changeover. Operate the changeover mechanism at least monthly, even if cleaning is not yet required, to keep it free-moving.

8 Maintenance

8.1 Maintenance Schedule

Maintenance intervals depend heavily on the cleanliness of the process medium and must be refined in the light of operating experience. The following schedule is a recommended starting point for planned maintenance.

Frequency	Activity
Each shift / daily	Record differential pressure; check visually for external leakage.
When ΔP rises 0.35–0.7 bar above baseline	Isolate and clean the basket (Section 8.2).
Monthly	Exercise duplex changeover mechanism; operate vent and drain valves briefly to confirm they are clear.
Every cleaning	Inspect basket, gasket/O-ring and seat for damage; replace as required.
Annually	Detailed inspection: body wall internal condition, seat wear, cover bolting condition, coating/paint repair, calibration of DP instrumentation.
Every 3–5 years or per site policy	Thickness survey of pressure envelope in corrosive/erosive services; gasket and fastener renewal.

Table 4: Recommended preventive maintenance schedule.

8.2 Basket Cleaning Procedure (Simplex)

> ⚠ **ISOLATE AND DEPRESSURISE FIRST**
>
> Complete steps 1 and 2 in full before loosening the cover. Opening a pressurised strainer can cause death or serious injury. Review the SDS for the process medium and wear the prescribed PPE throughout.

1. **Isolate the strainer**
Close the upstream isolation valve first, then the downstream isolation valve. Secure both against inadvertent operation (lock and tag) in accordance with the site permit system. For duplex units, complete the changeover to the standby chamber first (Section 7.3).

2. **Depressurise and drain**
Open the vent valve slowly to relieve internal pressure to atmosphere, then open the drain valve and drain the body at least to below the level of the cover seat. Confirm zero pressure on the strainer gauges before proceeding. Drain hot or hazardous fluids to a safe, contained location.

3. **Remove the cover**
Slacken the cover bolts evenly in a criss-cross pattern and remove the cover. On large units use the davit or lifting equipment provided. Place the cover on clean timber, gasket face upward, to protect the sealing surface.

4. **Withdraw and clean the basket**
Lift the basket out by its handle and empty the collected debris. Wash the basket with a high-pressure water jet, compressed air or a compatible solvent, working from the **clean (outside) surface inward** to back-flush the retained solids out of the perforations. Never strike, bang or scrape the basket to dislodge debris — a dented or torn basket no longer filters. Stubborn deposits may be soaked in a suitable cleaning solution compatible with the basket material.

5. **Inspect components**
Examine the basket for tears, holes, distortion, corrosion and weld cracking; replace it if any defect is found. Inspect the cover gasket or O-ring and renew it if compressed, cracked, hardened or scored — as a matter of good practice, renew the gasket at every opening. Check the basket seat and cover sealing face for damage, and clear accumulated sludge from the body sump through the drain.

6. **Reassemble**
Lower the basket squarely onto its seat, ensuring it is fully home and correctly oriented. Fit the gasket, replace the cover, and tighten the bolts hand-tight plus progressive criss-cross passes to the torque in Table 4. Close the drain valve.

7. **Return to service**
Restore the strainer to service using the start-up procedure in Section 7.1 — vent, pressurise slowly, establish flow gradually, check for leaks and record the new clean differential pressure.

> **KEEP A SPARE BASKET**
>
> Maintaining a spare basket and a set of cover gaskets on site allows the dirty basket to be exchanged immediately and cleaned off-line, reducing line downtime to minutes. This is strongly recommended for all critical services.

8.3 Gasket and Fastener Care

Use only gaskets of the type, material and dimensions specified for the order; substituting harder or thinner gaskets changes the bolt-load requirement and can cause leakage or flange damage. Store

elastomeric O-rings away from heat, ozone and sunlight. Renew any fastener showing corrosion, thread damage or evidence of over-stretching, and always renew fasteners as complete sets on covers subject to frequent opening. Quick-opening (clamp, yoke or hand-knob) covers must not be used in high-temperature service unless specifically rated for it.

9 Troubleshooting

Symptom	Probable Cause	Corrective Action
Rapid rise in differential pressure	High upstream debris load; perforation/mesh finer than necessary; process upset releasing solids	Clean the basket; review basket specification against actual debris size; investigate and correct the upstream source; consider duplex or larger unit for chronic loading
Leakage at the cover	Damaged or aged gasket; uneven or insufficient bolt torque; damaged sealing face; over-pressurisation	Renew the gasket; re-torque bolts in criss-cross pattern; dress or repair the sealing face; verify operating pressure against nameplate
Debris passing downstream	Basket torn, split or corroded; basket not seated; perforation larger than required; bypass valve passing	Replace the basket; re-seat squarely; select finer perforation/mesh; verify bypass and changeover valves seal correctly
High pressure drop with clean basket	Strainer undersized for flow or viscosity; mesh finer than necessary; partial blockage of piping	Verify sizing against actual flow and viscosity; coarsen mesh if protection requirements allow; inspect adjacent piping
Water hammer / banging on start-up	Rapid valve operation; air trapped in body	Open valves slowly; vent the body completely during filling; review start-up procedure with operators
Basket collapsed	Differential pressure exceeded 1.4 bar; blocked basket left in service; flow surge	Replace the basket; inspect downstream equipment for released debris; improve ΔP monitoring and cleaning frequency; fit DP alarm
External corrosion	Coating damage; aggressive environment	Clean and repair the coating; upgrade coating system or material for the environment

Table 5: Troubleshooting guide. If the fault persists, contact Globe United FZE technical support with the nameplate details and operating data.

10 Spare Parts

10.1 Recommended Spares

For each strainer in service, Globe United FZE recommends holding as commissioning spares one basket element and two cover gaskets or O-rings, and as two-year operating spares one additional basket, four gaskets/O-rings, one set of cover fasteners and one drain and vent plug. Genuine Globe United spare baskets are manufactured to the original drawings and tolerances; the use of non-genuine parts voids the warranty and may compromise filtration performance and pressure integrity.

10.2 Ordering Information

When ordering spare parts, quote the **serial number** and **model number** from the nameplate together with the nominal size and pressure class, the service medium and operating pressure/temperature, the required perforation or mesh size, and the part description. Orders and enquiries may be directed to info@globeunitedae.com or +971 50 330 1384.

Item	Part	Notes
1	Body	Pressure-retaining; not normally a spare item
2	Cover	With vent boss; davit on large sizes
3	Cover gasket / O-ring *	Renew at every opening
4	Basket element *	State perforation/mesh when ordering
5	Cover studs / bolts and nuts	Renew as complete sets
6	Drain plug / valve	NPT threaded; valve optional
7	Vent plug / valve	NPT threaded; valve optional

*Table 6: Principal parts list. Items marked * are recommended stock spares.*

11 Standards and Codes of Reference

The design, manufacture and testing of Globe United basket strainers draw upon the following international standards as applicable to the ordered specification: **ASME B16.5** (pipe flanges and flanged fittings), **EN 1092-1** (PN-designated flanges), **ASME B16.34** (valves and pressure-containing components — wall thickness guidance), **ASME BPVC Section VIII Div. 1** (design verification of large fabricated housings), **ASME B31.3** (process piping — installation context), **ASME PCC-1** (guidelines for bolted flange joint assembly), **ASME B16.21** (non-metallic flat gaskets), **ASTM material specifications** (A216, A351, A105, A182, A193, A194 and related), and the **EU Pressure Equipment Directive 2014/68/EU** where CE marking is specified. Globe United FZE operates a quality management system aligned with **ISO 9001**.

12 Warranty

Globe United FZE warrants its basket strainers to be free from defects in material and workmanship for a period of **eighteen (18) months from the date of shipment or twelve (12) months from**

commissioning, whichever occurs first. Within this period, Globe United FZE will, at its option, repair or replace ex-works any part found to be defective, provided that written notice of the defect is given promptly and, where requested, the part is returned carriage-paid for inspection.

This warranty does not cover damage or failure resulting from improper installation, operation or maintenance contrary to this manual; erosion, corrosion or chemical attack by the process medium; operation beyond the nameplate pressure, temperature or differential-pressure limits; unauthorised modification or repair; use of non-genuine spare parts; or normal wear of consumable items such as gaskets and baskets. In no event shall Globe United FZE be liable for indirect or consequential losses, including loss of production. This clause summarises the warranty; the full terms are stated in the conditions of sale applicable to each order.

13 Contact Information

For technical support, application engineering, spare parts and service, contact:

Globe United FZE
United Arab Emirates
Email: info@globeunitedae.com | Tel: +971 50 330 1384
Web: www.globeunitedae.com

When contacting us about equipment in service, please have the model number, serial number, size and a summary of the operating conditions available; this information enables our engineers to respond quickly and accurately.

INDUSTRIAL FLOW CONTROL SOLUTIONS

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