

DUSTLESS – Retractable Nozzle (DRN)

We develop tailor-made cleaning nozzles for applications where there are no suitable solutions on the market and which require technical support. The DRN is a cleaning nozzle specially developed for cyclones, where it is essential to maintain a continuous and uninterrupted airflow, ensuring the operational efficiency of the equipment.

Designed to increase the efficiency of CIP processes, the DRN is made of AISI 316L stainless steel and can be applied in ducts, vessels, and other equipment. Its design allows operation without the need to blow air during production. Installed in a position that ensures the return liquid drains through the main line, the nozzle features a simple, robust and easy-to-maintain construction.



>> Specifications:

Entirely in 304 stainless steel. Designed to increase the efficiency of the CIP, designed exclusively for use in bag filter mirrors, reducing liquid and air consumption. Designed to work with simple ventilation air, without the need compressed air and/or blower air, although it also works with these two types air. It has no moving parts (springs), which avoids common problems such blocked springs or stuck by dirt and/or expansions, as well as allowing cleaning with a lower volume of chemicals (completely eliminating internal leaks in our nozzle design). As there are no moving parts, it requires no maintenance. Easy to disassemble for periodic inspections. It can be installed in any bag filter that has a 43mm (+/- 0.2mm) holding hole and a mirror no more than 8mm thick; There should be 3-4 nozzles around each bag (depending on the design of the bag filter).



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>> Versions:

- DBN-1: Nozzle with stainless steel swivel (not sold)
- DBN-2: Nozzle with rotating piece in PEEK.

>> Specifications:

- Length: 140mm closed / 180mm open
- Flange thickness (for welding): 5 mm
- Weight: 2.6 kg
- Internal roughness: 0.8 μm Ra
- Temperature: maximum 150°C
- Working Pressure: 1.5 to 2 barg
- Body Material: AISI 316L
- Rotating Part Material: PEEK
- Gasket Material: Viton
- Connection to CIP line: 2" TC, customer can be reduced to 1" without problem.

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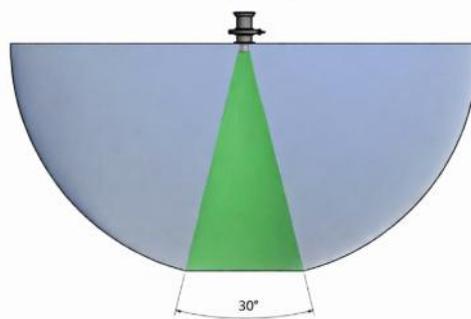
>> Installation:

Drill a hole of Ø79 mm and sharpen up to 80 mm Ø. This edge will compensate for the shrinkage that occurs after welding. Point the part to be welded at the correct position and check the position before continuing.

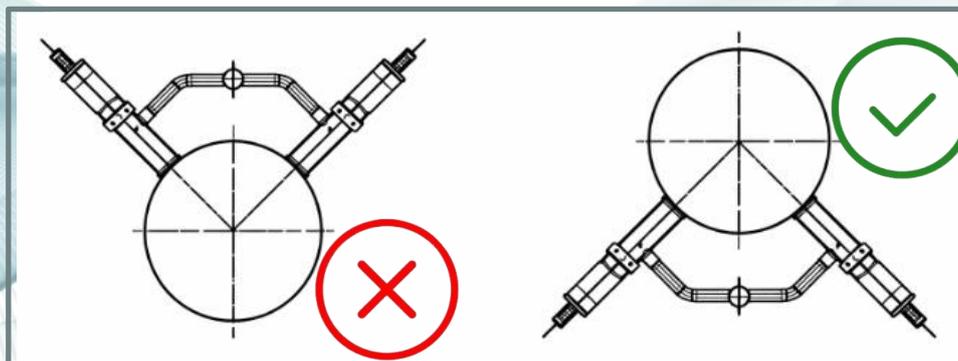


Place the brass insert/doll to avoid deformations; The hole should remain round and free of scratches. Make sure the mannequin doesn't shift. Use at least 4 passes to fully weld the part. After each pass, let the piece cool until it's safe to touch. Only after cooling does it continue welding. Continue welding with a minimum displacement of 90° relative to the last sea. After the soldering is complete, allow it to cool completely before removing the brass mannequin.

Like all retractable cleaning nozzles, there is one shadow area that should be considered when installing:



The DBNs should be drainable towards the feed line, so they should always be positioned in the bottom half (see figure below):

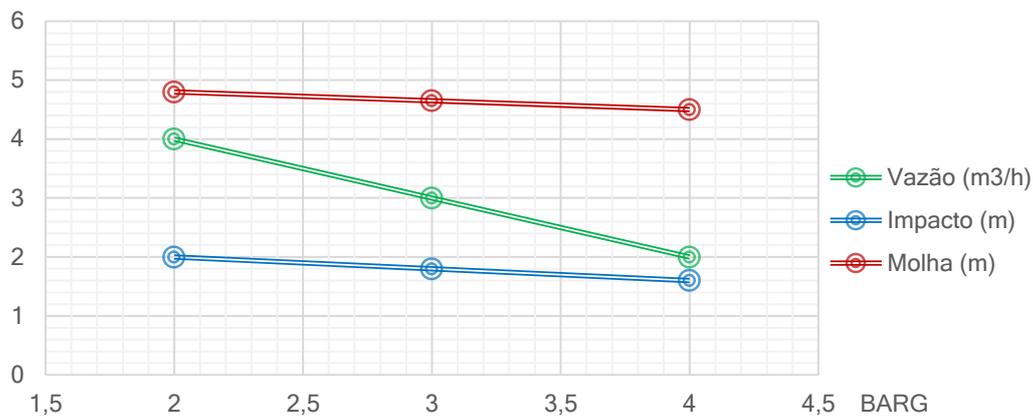


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» **Process data:**

Basic standard: 4m³/h at 2 barg, 2m impact range or 4.8m wetting range. See below:

Dados de Processo DRN-1



| Duct | Nozzle Spacing | Number of nozzles in each ring |
|-----------|----------------|--------------------------------|
| (mm) | (mm) | (mm) |
| 0-250 | 1200 | 1 |
| 250-400 | 1500 | 1 |
| 400-700 | 1750 | 1 |
| 700-1400 | 1750 | 2 |
| 1400-2500 | 1750 | 3 |