

Self-cleaning screen

Why to choose GIRON screens?

RIGHT ANSWER TO YOUR SCREENING PROBLEMS

- 1-To keep the screening area practically intact** in spite of the presence of fine, humid or argillaceous particles which tend to clog conventional woven-wire mesh.
- 2-To limit or eliminate pegging** on crushed materials.
- 3-To improve the yield** of an undersized screening machine.
- 4-To increase the service life**, especially for underwater screening of highly abrasive fine materials.

SCREEN SERVICE-LIFE

The service-life of woven-wire screens depends on 3 core factors:

1 - The quality of the steel

Considering the importance of the effect of carbon content on the abrasion resistance, GIRON requires 0.5% of carbon as a minimum.

2 - The quality of the design

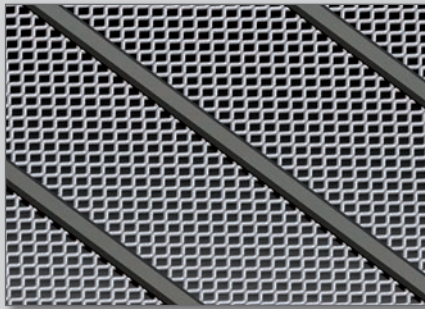
GIRON screens are always defined according to your screening machine; each detail allows us to provide an efficient solution and adapted to your equipment and materials to screen. Our unique experience as inventor (patents in 1951 & 1952) of this self-cleaning solution is a guarantee for you to get the best expertise to resolve clogging problems.

3 - The quality of the screening machine

The right setting up of the screen on the machine is crucial regarding its service-life. It is important to check if the tensioning systems or supports are in good conditions and also if the hooks are correctly tightened to avoid any breaking or premature wear.

BREAKDOWN/EMERGENCY

Our production capacity allows us to secure a breakdown in 5 days maximum for self-cleaning mesh.



ONDAP GOMME *Special version for hot screening*

The ONDAP GOMME screen is the core solution in many screening applications with clogging or pegging problems. It is a technical solution invented by GIRON and patented in 1951.

Its square-mesh's design leads to get a very precise size grading of the screened products, mainly designed to replace conventional meshes in case of pegging or clogging. One of its diagonals is parallel to the materials screening path leading to get a **higher efficiency**.

The screen is composed of **independent high resistance warp wires and reinforced by anti-abrasive rubber strips**.

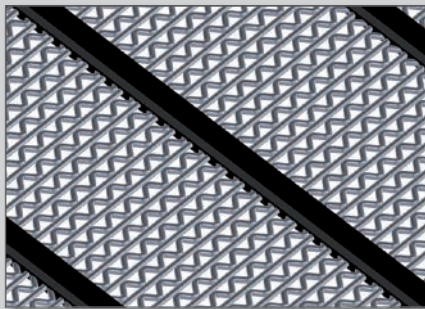
According to the screening conditions, our team can propose you alternative options such as stainless steel wires, lateral material-proof seal, overlapped rubber strip, rubber compatible for food industry, etc.

STANDARD RANGE

$0.8 \leq \text{Mesh} \leq 100 \text{ mm}$
 $0.6 \leq \text{Wire} \leq 7 \text{ mm}$

Clogging = it occurs when the mesh is completely obtruded due to the humidity of «fines particles» into the material during dry screening.

Pegging = it occurs when a material keeps locked in the mesh.



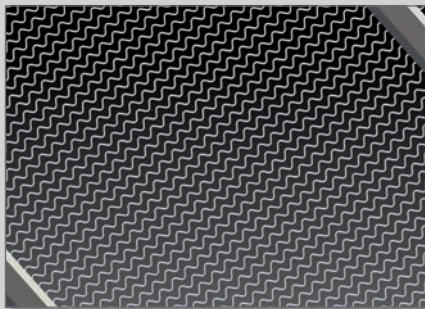
MIXTE GOMME *Special version for hot screening*

In some cases, the ONDAP GOMME screen may be replaced by the MIXTE GOMME screen. It is a technical solution invented by GIRON and patented in 1952.

The alternative of crimped and straight wires leads to get a variation in the vibrations' amplitude. Thanks to this design, the MIXTE-GOMME gets **excellent results against shocks** or when the screen deck may receive **high load of products**.

STANDARD RANGE

$1.6 \leq \text{Mesh} \leq 55 \text{ mm}$
 $1 \leq \text{Wire} \leq 8 \text{ mm}$



ZIG-ZAG GOMME

Our ZIG-ZAG GOMME screen is the solution to get the **best anti-clogging efficiency**, because of the total absence of contact between wires. Due to its design, the best results are reached in end-side tensioning when products go in parallel of the wires.

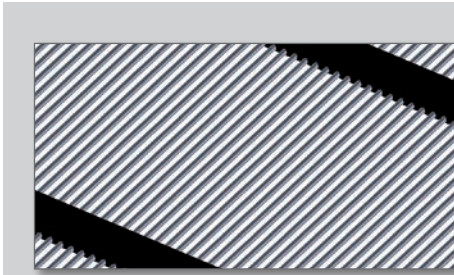
It is crucial to keep in mind the ZIG-ZAG GOMME screen is a real powerful screen mesh. Several technical solutions could be declined from the ZIG-ZAG GOMME to solve screening problems. Our team could give you profitable advises how to define the right screen according to your applications.

STANDARD RANGE

$0.7 \leq \text{Mesh} \leq 60 \text{ mm}$
 $0.6 \leq \text{Wire} \leq 7 \text{ mm}$

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LONPLAN GOMME

The LONPLAN GOMME screen is mainly use for **materials' de-watering** or as a **degritting grid**. It has also relevant properties for underwater screening. Its design, using high resistance straight wires which are perfectly parallels and offering a whole flat surface, leads to get **uneven mechanical and wear strengths**.

STANDARD RANGE

$0.5 \leq \text{Mesh} \leq 60 \text{ mm}$
 $1.6 \leq \text{Wire} \leq 8 \text{ mm}$



PIANO WIRE

The PIANO WIRE screen is installed in general on mobile screening machines with end-tensioning hooks. It offers **high anti-clogging effect** and screening efficiency. However, its mesh may not be precised enough in some applications. The sliding plastic profiles highly facilitate the assembly in the screening machine.

STANDARD RANGE

$1 \leq \text{Mesh} \leq 30 \text{ mm}$
 $0.8 \leq \text{Wire} \leq 3 \text{ mm}$

ADVISES TO INCREASE THE SERVICE-LIFE OF A TENSIONED SCREEN

H Follow the original manufacturer's value (incidence on the crown)

Check that the mesh is in contact with all the supports and that it does not separate from them under the effect of a vertical force.

The slightest gap at this point leads to a serious risk of breakage.

The side tension plate should only be in contact with the bottom of the hook.

A space of 10 to 15 mm should be observed to allow correct tensioning.

NO

YES

YES

10 to 15 mm

It is required to start the screening machine without load for few minutes for regulating the screen's tensioning. Then a locking adjustment may be necessary to finalize the correct screen's positioning.

It is highly recommended to tighten regularly the tensioning systems to guarantee the most efficiency locking of the screen on the deck and get the optimal service-life.

Faulty positioning. Risk of opening.

Screen too long. Insufficient tension.

Hook return too long. The hook tilts.

Hook angle too open or return too long. Hook tilts.

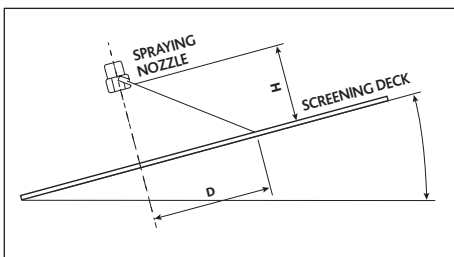
Alignment fault. Hook or side tension plate shape to be revised. Hook tilts.

Vertical sliding of the side tension plate. Provide end stop to prevent movement. Crown no respected.

If the screen breaks before normal wear, the wire may be too fragile. A quick on-the-spot checking may prove that.

Respect the manufacturer's figures

IN CASE OF BREAKING OR PREMATURE WEAR OF A TENSIONED SCREEN



If the screen breaks before normal wear, the wire may be too fragile. A quick on-the-spot checking may prove that:

- a) If the screen broke in a straight line along the rubber mountings, it is certainly due to faulty tensioning
- b) If the screen broke in a certain spot at the feed zone, it is certainly due to the feed rate is too high or not centered.

c) For underwater screening, the water pressure should not exceed 2 to 3 bars (<30-45 psig) to avoid premature wear by grinding. A wide spray will be more efficient than a local jet on the materials to wash.

Anyway, a regular and homogeneous supply of products on all the screen's width allows any overload, increase its service-life and its efficiency.