

Technical Newsletter

#tnl2010-0014e

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Corrective Action for the Problem of the Swollen Braided Hose

This document is to notify you of the problem with some of the relevant details, along with the corrective action that we have established. We apologize for any trouble this will cause you and appreciate your understanding.

Phenomenon of a swollen braided hose

This problem mainly occurs at the primary connecting port of the machine. Fluid (air or infrequently water) enters into the middle layer of the braided hose, which is a two-layer structure and because of this, the hose is swollen like a balloon.

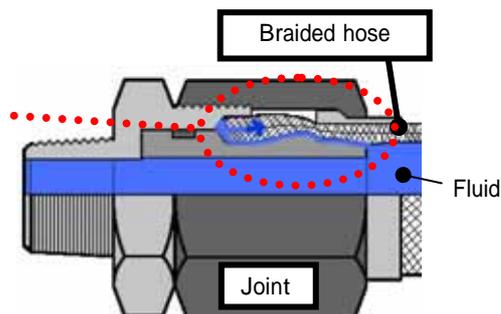
The cause is assumed to be how the braided hose has been installed (work-related variation), but it is difficult to determine whether the hose has been attached properly or not so that the problem emerges only when the hose is swollen.

Although the number of cases is quite small, we have received a worst case where the braided hose was burst.

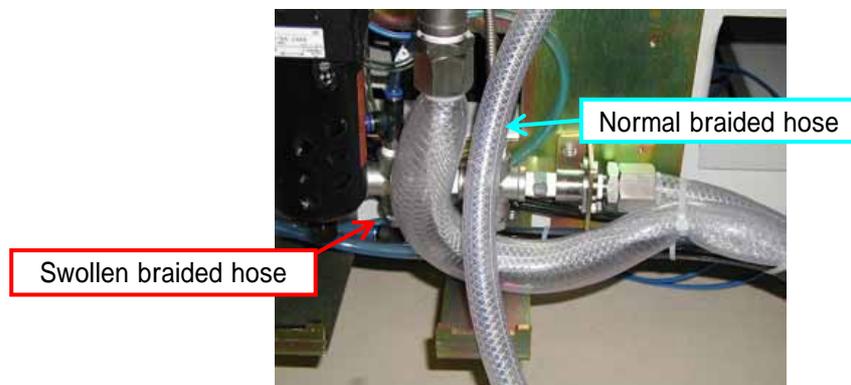
Note: The outside of the two-layer structure burst, but the inside is intact, so the supply air is not shut down immediately.

Mechanism which causes this problem (cross-section of the braided hose joint)

Internal fluid flows into a gap between the joint and braided hose and enters into the inside of the braided hose. This causes swelling.



Photograph showing an actual swollen braided hose



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Tendency of this phenomenon

This problem does not occur except only on specific models.

We have discovered that this problem tends to occur after a relatively short period (normally several months) after being assembled.

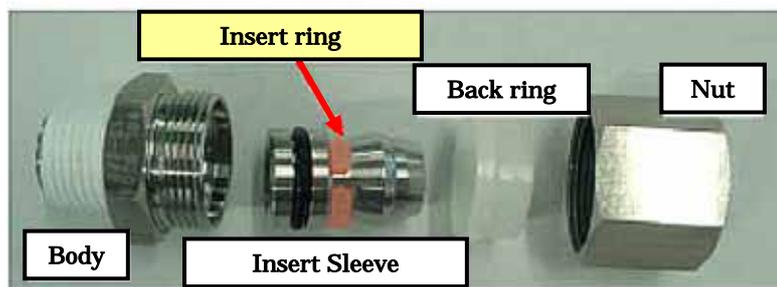
Because of this, if the braided hose has not swollen after more than six months has elapsed, the condition is stable, so it is recommended to use it as it is.

Prevention of braided hose swelling

An insert ring will be added to the braided hose joint, which avoids the condition where fluid is retained inside the fitting (the fundamental cause).

If your braided hose is already swollen, you can prevent a recurrence of the problem by adding the grooved front ring at the time of part replacement.

Note: A DISCO internal evaluation has confirmed that addition of this insert ring does not impact the machine performance.



Note: For easy clarification, the insert ring is colored in this photo, but the actual insert ring is milky white.

Inquires

You can order the insert ring only from DISCO. If you are interested in this, contact your DISCO sales or service staff.

End of report