
**Corrosion of metals and alloys —
Crevice corrosion formers with disc
springs for flat specimens or tubes
made from stainless steel**

*Corrosion des métaux et alliages — Dispositif d'essai de corrosion par
crevasse avec rondelles ressort pour échantillons plats ou tubulaires
en acier inoxydable*

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Foreword

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The committee responsible for this document is ISO/TC 156, *Corrosion of metals and alloys*.

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Introduction

The working party on Marine Corrosion in the European Federation of Corrosion (EFC) has found that there is an industrial need for crevice corrosion testing for seawater applications that can estimate the maximum service temperature in natural seawater for stainless steels. Several aspects of crevice corrosion testing were elucidated by a research project.^[1] It was found that an important factor is the crevice forming technique, and in order to have controlled crevices, the disc spring loaded crevice former was introduced. The general idea is that the disc springs shall keep the clamping force as constant as possible. In addition to the crevice forming technique for plate specimens, a technique for a crevice former for tubular specimens was developed, which has given reproducible results.

Round robin testing for the crevice forming technique was performed for both laboratory testing and in natural seawater and it showed improvement compared to traditional crevice formers. Good correlation was found between the laboratory testing and natural seawater.

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