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# Aerospace series — Hydraulic filter elements — Test methods —

## Part 6: Initial cleanliness level

Série aérospatiale — Eléments filtrants hydrauliques — Méthode d'essais —

Partie 6: Niveau de propreté



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#### Foreword

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The committee responsible for this document is ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 10, *Aerospace fluid systems and components*.

ISO 14085 consists of the following parts, under the general title *Aerospace series* — *Hydraulic Filter elements* — *Test methods*:

- Part 1: Test sequence
- Part 2: Conditioning
- Part 3: Filtration efficiency and retention capacity
- Part 4: Verification of collapse/burst pressure rating
- Part 5: Resistance to flow fatigue
- Part 6: Initial cleanliness level

### Introduction

In aerospace hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure. The liquid is both a lubricant and power-transmitting medium. The presence of solid contaminant particles in the liquid interferes with the ability of the hydraulic fluid to lubricate and causes wear and malfunction of the components. The extent of contamination in the fluid has a direct bearing in the performance, reliability, and safety of the system, and needs to be controlled to levels that are considered appropriate for the system concerned.

Filters are used to control the contamination level of the fluid by removing solid contaminant particles, typically consisting of a filter element enclosed in a filter housing. The filter element is the porous device that performs the actual process of filtration. The complete assembly is designated as a filter.

Hydraulic fluid circuits require high levels of cleanliness which are not to be degraded by the filter element itself when installed into the circuit. This procedure defined a test method to determine the initial cleanliness level of a new hydraulic filter element.