ISO 17874-3:2011-11 (E)

Remote handling devices for radioactive materials - Part 3: Electrical master-slave manipulators

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Field of application 3

5 General features 4

6 Requirements 5
6.1 General aspects 5
6.2 Motions 5
6.3 Load capacity 6
6.4 Length of the slave arms 6
6.5 Forces, torques and lengths 7
6.6 Design features 7
6.7 Friction 15
6.8 Deflection under load 15
6.9 Velocities 16
6.10 Dimensions of tongs with parallel jaws (standard tongs) 17
6.11 Electrical servo-system 18

7 Optional features 23

8 Operation 24
8.1 Master arm 24
8.2 Operating station 26

9 Slave units and transporters 28

10 Special tongs and tools 30

11 Criteria for selection 32

12 Testing 32

13 Non-radioactive trial cells 32

Annex A (informative) Features of prototypes and experimental devices not covered by this part
Annex B (informative) Television systems 35

Bibliography 38