

RING MECHANISMS

PRODUCT DESCRIPTION

285 mm four-ring round mechanism with 14 mm ring capacity, ideal for light-duty bookbinding and filing applications.

As the exclusive distributor of Ring Mechanisms in Italy, Cavallini S.r.l. supplies this product exclusively within the Italian market.

TECHNICAL INFORMATION

Unit of Measure: pcs
Type: Round Ring Mechanism
Mechanism Length: 285 mm
Overall Height: 26 mm
Overall Width: 23 mm
Base Width: 20 mm
Hole Diameter: 4.2 mm
Wire Diameter: 2.7 mm
Ring Spacing: 80 mm
Hole Centre Distance: 275 mm
Ring Capacity: 14 mm
Quantity per Box: 200 pcs
Package Weight: 12.40 kg

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product Details: Nickel-plated ring mechanism (without plastic components)
Recommended use: stationery articles

2. HAZARDS IDENTIFICATION

- 2.1 Hazard Description
Not applicable

- 2.2 Information concerning particular hazards for humans and the environment
This product does not require labeling according to the calculation method of the EU Directives on classification and labeling of substances and preparations (67/548/EEC, 1999/45/EC and 1907/2006/EC).

2.3 Classification System

The classification complies with the latest editions of EU Directives 67/548/EEC, 1999/45/EC and 1907/2006/EC, supplemented by company data and literature references.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Chemical Characterization

Description:

Mixture of the substances listed below together with non-hazardous additives.



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified

CAS	CHEMICAL COMPONENTS	WEIGHT
CAS: 7439-89-6 EINECS: 231-096-4	Iron	Remiander
CAS: 7440-02-0 EINECS: 231-111-4 EU Number:028-002-00-7	Nickel	Max 1,50%
CAS: 7439-96-5 EINECS: 231-105-1	Manganese	Max 2,00%
CAS: 7440-44-0 EINECS: 231-153-3	Carbon	Max 1,00%
CAS: 7440-32-6 EINECS: 231-142-3	Titanium	Max 0,10%
CAS: 7429-90-5 EINECS: 231-072-3 EU Number:013-001-00-6	Aluminium powder (pyrophoric)	Max 0,35%
CAS: 7704-34-9 EINECS: 231-722-6	Sulphur	Max 0,15%
CAS: 7723-14-0 EINECS: 231-768-7 EU Number:015-002-00-7	Red Phosphorus	Max 0,15%
CAS: 7440-42-8 EINECS: 231-151-2	Boron	Max 0,02%
CAS: 7440-47-3 EINECS: 231-157-5	Chromium	Max 0,85%
CAS: 7727-37-9 EINECS: 231-783-9	Nitrogen	Max 0,07%
CAS: 7440-50-8 EINECS: 231-159-6	Copper	Max 1,00%
CAS: 7440-21-3 EINECS: 231-130-8	Silicon	Max 1,35%
CAS: 7440-03-1 EINECS: 231-113-5	Niobium	Max 0,10%
CAS: 7439-98-7	Molybdenum	Max 0,50%
CAS : 1314-62-1	Vanadium	Max 0,25%
CAS : 7440-70-2	Calcium	Max 0,005%

Remark

Nickel (CAS 7440-02-0) – Synonyms: nickel electroplating

4. FIRST AID MEASURES

After air inhalation: supply fresh air; consult doctor incase of complaints.

After skin contact: Immediately wash with water and soap and rinse thoroughly.If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult a doctor.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Protective equipment: No special measures required.



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified

6. ACCIDENTAL RELEASE MEASURES

6.1 Person-related safety precautions

Wear protective equipment. Keep unprotected persons away.

6.2 Measures for environmental protection

Do not allow to enter sewers/surface of groundwater.

6.3 Measures for cleaning/collecting

Pick up mechanically.

7. HANDLING AND STORAGE

7.1 Handling: information for safe handling

- Store in cool, dry place in tightly closed receptacles.
- Open and handle receptacle with care.

7.2 Information about fire and explosion protection

- Keep ignition sources away-Do not smoke.

7.3 Storage

Requirements to be met by store rooms and receptacles: store in a cool, dry location.

Information about storage in one common storage facility:

- Store away from food stuffs.
- Store away from oxidizing agents.

6.4 Further information about storage conditions

store in a cool, dry place.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data: see item 7.

8.1 Ingredients with limit values that require monitoring at the workplace:

7440-44-0 carbon	
WEL (GB)	10*4**mg/m3 Inhale dust* respirable
7440-21-3 silicon	
PEL (USA)	15*5***mg/m ³
REL (USA)	*total dust **respirable fraction 10*5** mg/m3
TLA (USA)	*total dust **respirable fraction TLV withdrawn
WEL (Great Britain)	10*4** mg/m3 *Inhalable dust **respirable dust
7439-96-5 manganese	
PEL (USA)	Short-term value: C5* ** mg/m3 As Mn *and inorganic compounds **fume
REL (USA)	Short-term value: 3* ** mg/m3 Long-term value: 1* ** mg/m3
TLV (USA)	As Mn *and inorganic compounds **fume 0.2* ** mg/m3 As Mn *and inorganic compounds **fume
7723-14-0 red phosphorus	
WEL (Great Britain)	Short-term value: 0.3 mg/m3 Long-term value: 0.1 mg/m3
7429-90-5 aluminium powder (pyrophoric)	



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified

The mark of responsible forestry

WEL (GB)	10*4**mg/m3 Inhalable dust* respirable
7440-21-3 silicon	
PEL (USA)	15*5***mg/m3
REL (USA)	*total dust **respirable fraction 10*5** mg/m3
TLA (USA)	*total dust **respirable fraction TLV withdrawn
WEL (Great Britain)	10*4** mg/m3 *Inhalable dust **respirable dust
7439-96-5 manganese	
PEL (USA)	Short-term value: C5* ** mg/m3 As Mn *and inorganic compounds **fume
REL (USA)	Short-term value: 3* ** mg/m3
TLV (USA)	Long-term value: 1* ** mg/m3 As Mn *and inorganic compounds **fume 0.2* ** mg/m3 As Mn *and inorganic compounds **fume
7723-14-0 red phosphorus	
WEL (Great Britain)	Short-term value: 0.3 mg/m3 Long-term value: 0.1 mg/m3
7429-90-5 aluminium powder (pyrophoric)	
IOELV (EU)	2 mg/m3 as Cr
PEL (USA)	1 mg/m3
REL (USA)	0.5 mg/m3
TLV (USA)	0.5 mg/m3
WEL (GB)	0.5 mg/m3
7440-02-0 nickel	
PEL (USA)	1 mg/m3
REL (USA)	0.015 mg/m3 Elemental
TLV (USA)	1.51 mg/m3 Elemental
WEL (GB)	0.5 mg/m3 as Ni
7440-50-8 copper	
PEL (USA)	1*0.1**mg/m3 as Cu*dusts and mist **fume 1*0.1R**mg/m3
REL (USA)	as Cu*dusts and mist **fume
TLV (USA)	Short-term value: 0.1**mg/m3 Long-term value: 1*0.2**mg/m3 *dusts and mists: **fume; as Cu
WEL (Great Britain)	Short-term value: 2**mg/m3 Long-term value: 0.2*1**mg/m3 * fume **dusts and mists (as Cu)

DNEL: not available

PNEC: not available

Additional information: The lists valid during the making were used as basis.

8.2 Personal protective equipment:

General protective and hygienic measures: The usual precaution measures are to be ad here to when handling chemicals.

Respiratory protection: not required.



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified

Protection of hands: The glove material has to be impermeable and resistant to the product/the substance/the Preparation. Due to missing tests no recommendation to the glove material can be given for the product/the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material: the exact break through time has to be found out by manufacturer of the protective gloves and has to be observed.

Eye protection: not required

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Form: solid

Colour: silver grey

Odour: odour less

Change in condition

Melting point/melt in range: Not available

Boiling point/boiling range: Not available

Flashpoint: Not available

Flammability (solid, gaseous): Not available

Ignition temperature: Not available.

Decomposition temperature: Not available

Self-igniting: Product is not self-igniting

Danger of explosion: Product does not pose explosion hazards

Explosion limits:

Lower: Not available

Upper: Not available

Oxidizing properties: Not available

Vapour pressure: Not available

Density: Not available

Relative density: Not available

Vapour density: Not available

Evaporation rate: Not available

Solubility in/Miscibility with water: Not available

pH-value: Not available

Segregation coefficient (n-octanol/water): Not available

Dynamic viscosity: Not available

10. STABILITY AND REACTIVITY

- Thermal decomposition/conditions to be avoided: No decomposition if according to specifications.
- Dangerous reactions: No dangerous reactions known.
- Dangerous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

- Acute toxicity

LD/LC50 values relevant for classification:		
7439-89-6 iron		
Oral	LD50	30mg/kg (rat)
7440-21-3 silicon		
Oral	LD50	3160mg/kg (rat)
7439-96-5 manganese		
Oral	LD50	9000mg/kg (rat)
7704-34-9 sulphur, precipitated, sublimed or colloidal		



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified

Oral Dermico	LD50 LD50	> 5000mg/kg (rat) > 2000mg/kg (rabbit)
7440-42-8 boron		
Oral	LD50	650mg/kg (rat)

Primary irritant effect:

- On the skin: Irritating effect possible
- On the eye: Irritating effect possible
- Sensitization: Sensitization possible through skin contact.
- Additional toxicological information: The product is not subject to classification according to the calculation method. EU directives(67/548/EEC,1999/45/ECand1907/2006/EC). When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
- Toxico kinetics ,metabolism and distribution :Not available
- Acute effects (acute toxicity, irritation and corrosivity) : Not available
- Repeated dosetoxicity : Not available
- CMR effects (can cerogenity, mutagenicity and toxicity for reproduction) :Not available

12. ECOLOGICAL INFORMATION

- Information about elimination (persistence and degradability) :Not available

Behaviour in environmental systems:

- Mobility and bio accumulation potential :Not available
- Ecotoxical effects :Not available
- Acqua tictoxicity:Not available

General notes:

Water hazard class2(German Regulation)(Self-assessment):hazardous for water

Do no tallow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

PBTassessments : Not available

13 DISPOSAL CONSIDERATIONS

Product

Recommendation : Smaller quantities can bedisposed of with household waste.

Uncleaned packaging:

Recommendation :Disposal must be made according to official regulations.

14 TRANSPORT INFORMATION

Land transport ADR/RID (cross-border)

- ADR/RID class: –
- Danger code (Kemler): –
- UN-Number: –
- Hazard label: –
- Description of goods: –
- Limited quantities (LO): –
- Transport category: –
- Tunnel restriciton code: –

Maritime transport IMDG:

- IMDG Class: –
- UN-Number: –
- Label: –
- Packaging group: –
- EMS Number: –
- Marine pollutant: No
- Proper shipping name: –

Air transport ICAO-TI e IATA-DGR

- ICAO/IATA Class: –



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified

- UN/ID Number: –
- Label: –
- Packaging group: –
- Proper shipping name: –

15 REGULATORY INFORMATION

Sara

Section 355 (extremely hazardous substances):

- 7723-14-0 red phosphorus

Section 313 (Specific toxic chemical listings):

- 7439-96-5 manganese
- 7440-02-0 nickel
- 7429-90-5 aluminium powder (pyrophoric)
- 7440-47-3 chromium
- 7723-14-0 red phosphorus
- 7440-50-8 copper

TSCA (Toxic Substances Control Act):

- 7439-89-6 iron
- 7439-96-5 manganese
- 7440-02-0 nickel
- 7440-44-0 carbon
- 7440-32-6 titanium
- 7429-90-5 aluminium powder (pyrophoric)
- 7440-47-3 chromium
- 7440-21-3 silicon
- 7723-14-0 red phosphorus
- 7704-34-9 sulphur
- 7440-03-1 niobium
- 7440-42-8 boron

Proposition 65

Chemicals known to cause cancer:

- 7440-02-0 nickel

Chemicals known to cause reproductive toxicity for females:

- None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

- None of the ingredients is listed
- Chemicals known to cause developmental toxicity
- None of the ingredients is listed

Carcinogen categories

IARC (International Agency for Research on Cancer)

- 7440-02-0 nickel
- 7440-47-3 chromium

NTP (National Toxicology Program)

- 7440-02-0 nickel

TLV (Threshold Limit Value established by ACGIH)

- 7440-02-0 nickel
- 7440-47-3 chromium
- 7429-90-5 aluminium powder (pyrophoric)

NIOSH-Ca (National Institute of Occupational Safety and Health)

- 7440-02-0 nickel

OSHA-Ca (Occupational Safety & Health Administration)



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified

- None of the ingredients is listed

Labelling according to EU guidelines

Observe the general safety regulations when handling chemicals. The product is not subject to classification according to EU Directives 67/548/EEC, 1999/45/EC and 1907/2006/EC.

Code letter and hazard designation of product :Not available

Special labeling of certain preparations:

Contains nickel, May produce an allergic reaction.

National regulations

- Other regulations, limitations and prohibitive regulations
- ·Candidate List of Substances of very high concern (SVHC) according to ECHA (20/06/2013)
- None of the ingredients is listed.
- ·REACH Regulation Annex X VII Restriction : None of the ingredients is listed.
- ·REACH Regulation Annex X IV Authorization :None of the ingredients is listed..

16 OTHER INFORMATION

10 Flammable

11 Highly Flammable

15 Contact with water liberates extremely flammable gases.

16 Explosive when mixed with oxidizing substances.

17 Spontaneously flammable in air.

22 Harmful if swallowed.

40 Limited evidence of acarcinogenic effect.

43 May cause sensitization by skin contact.

48 Danger of serious damage to health by prolonged exposure.

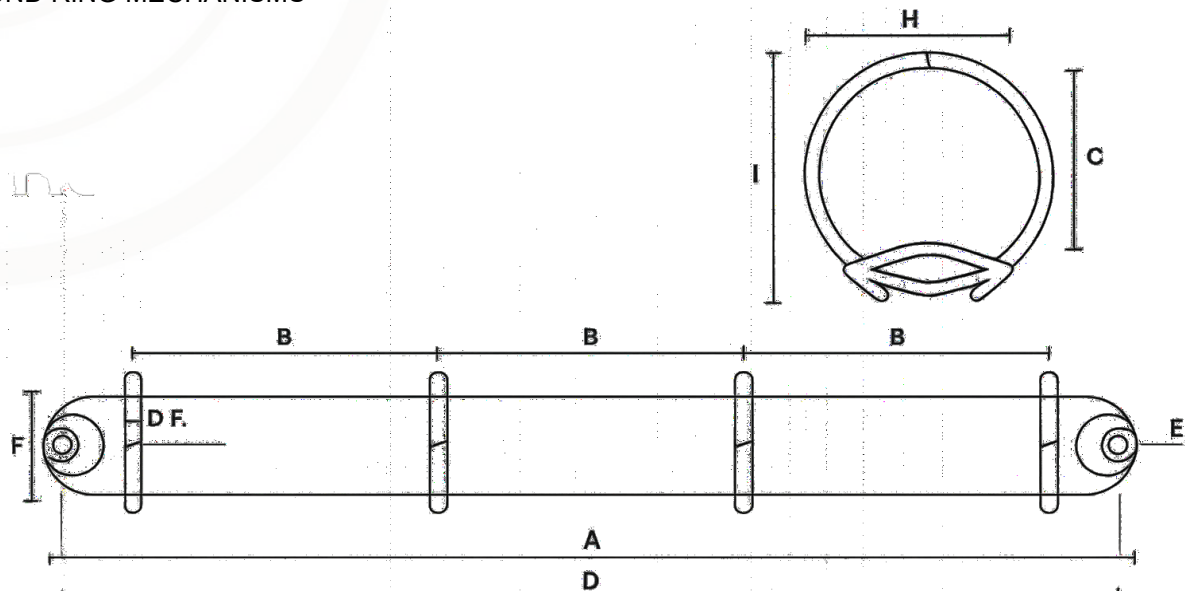
52/53 Harmful to aquatic organisms ,may cause long-term adverse effects in the aquatic environment.

contents and format of this MSDS/SDS are in accordance with REGULATION (EC) No1907/2006, EU Commission Directive 1999/45/EC, 67/548/EEC

MECHANISMS DETAILS

* The legend refers to the dimensions indicated in the catalogue.

ROUND RING MECHANISMS



A – Mechanism Length

B – Ring Spacing

G – Quantity per Box

H – Overall Mechanism Width

C – Ring Capacity

D – Hole Centre Distance

I – Overall Mechanism Height

D.F – Wire Diameter

E – Hole diameter

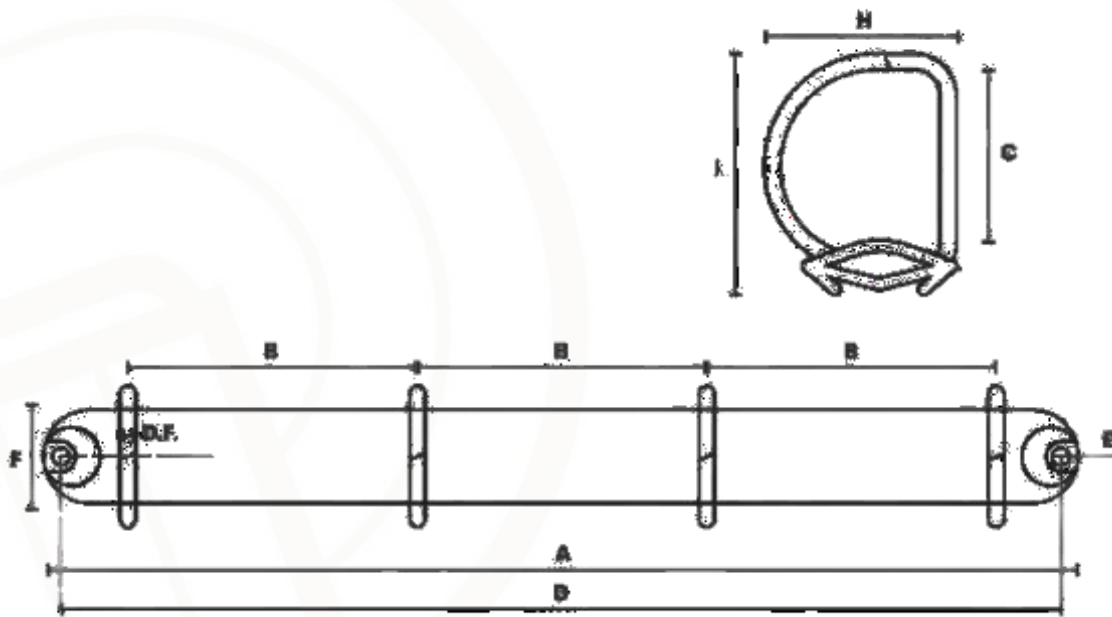
F – Base width



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified

D-RING MECHANISMS

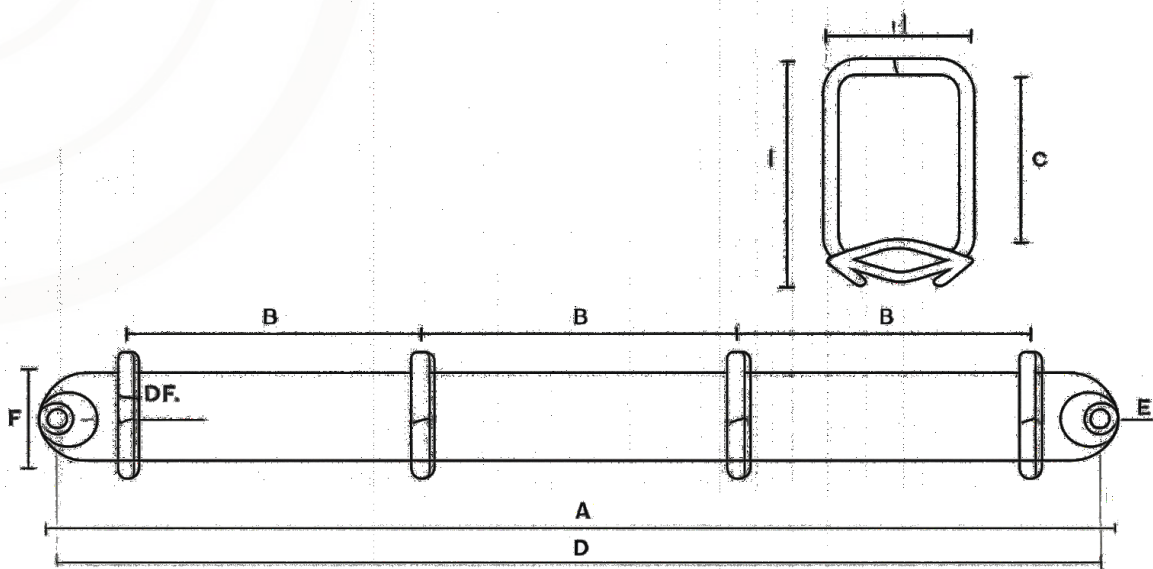


A – Mechanism Length
B – Ring Spacing
G – Quantity per Box
H – Overall Mechanism Width

C – Ring Capacity
D – Hole Centre Distance
I – Overall Mechanism Height
D.F – Wire Diameter

E – Hole diameter
F – Base width

Q-RING MECHANISMS



A – Mechanism Length
B – Ring Spacing
G – Quantity per Box
H – Overall Mechanism Width

C – Ring Capacity
D – Hole Centre Distance
I – Overall Mechanism Height
D.F – Wire Diameter

E – Hole diameter
F – Base width



Discover our FSC® certified products

Only the products that are identified as such on this document are FSC® certified