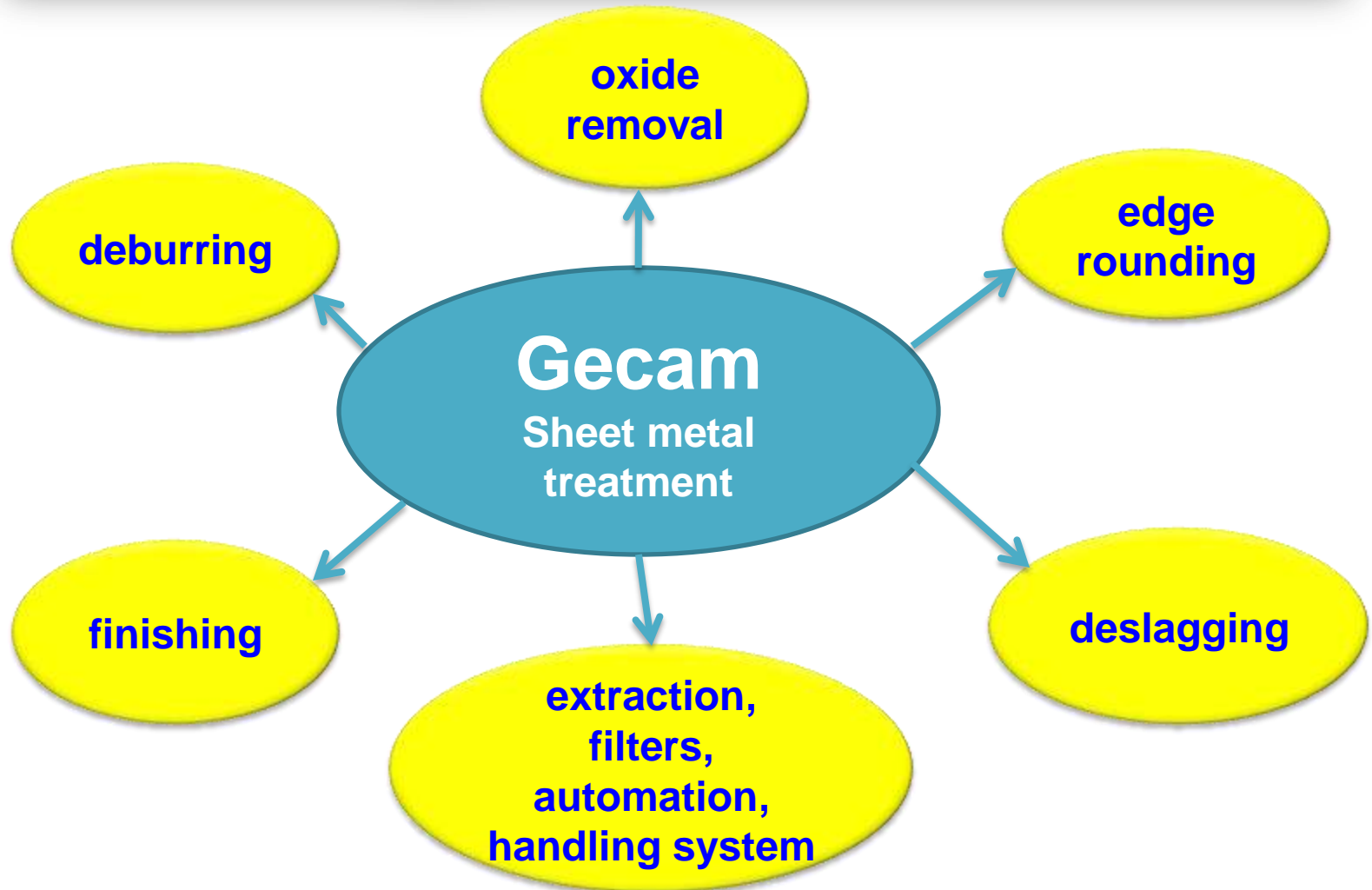


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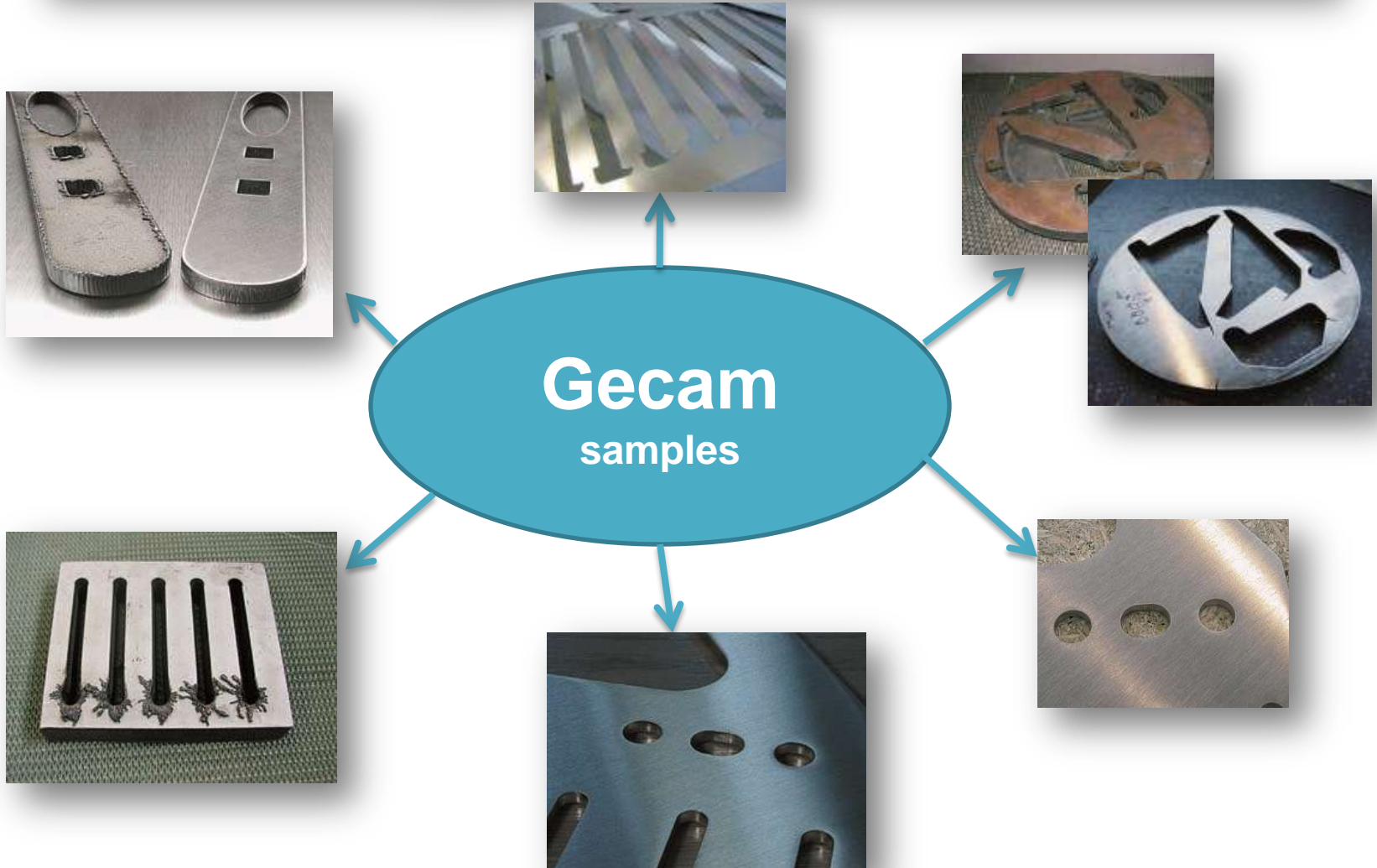


GECAM

Sheet Metal Treatment



GECAM



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G

Gecam
machines

G3 – G6 – G11
G13 - G16



GECAM



RT

Gecam
machines



Rotoplus

GECAM



dry

wet

ASP models

Gecam
filtration



PLS models

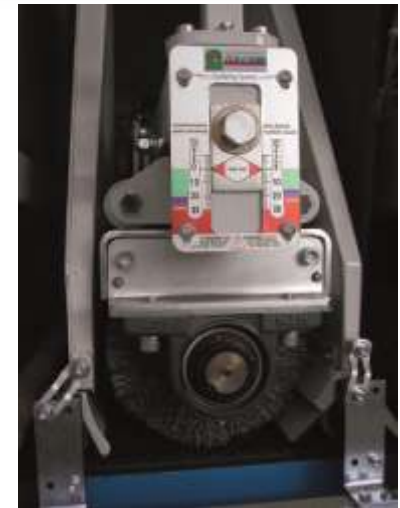


from 2.000 up to 12.000 m³ / h

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**R unit
belt**



**B unit
barrel
brush**

**Machines
aggregates**



**H unit
top
brush**



**b unit
Round
external
brush**



Max units available on the G models

Max units: 2 + 1

G 3

G 6

Max units: 2 + 1



G 11

Max units: 3 + 1

G 13 – G 16

Max units: 4 + 1



Options available on G models

more power abrasive belt motor

2 speed abrasive belt

variable speed abrasive belt

different contact roller

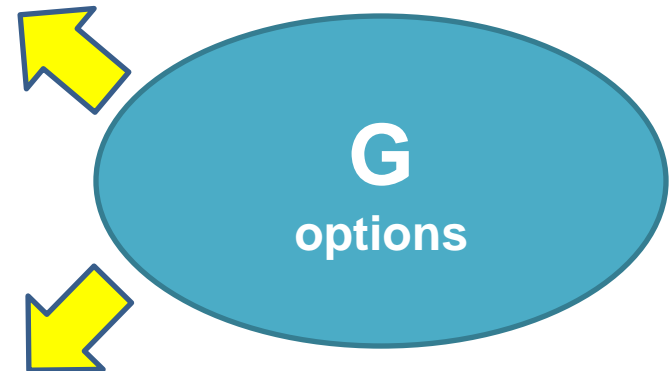
variable speed conveyor belt

PLC Siemens control

PA automatic reading thickness

vacuum system on conveyor belt

infeed and outfeed rollers



automatic belt air cleaning system



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Sheet Metal Treatment

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Grinding on square pipe up to 160 mm





Surface finishing on sheet putty knife

G3 2RR





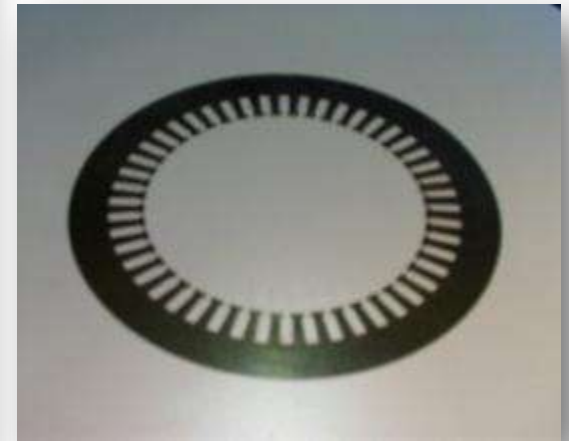
Surface finishing

Small pieces
Suitable with G3





Deburring + Grinding





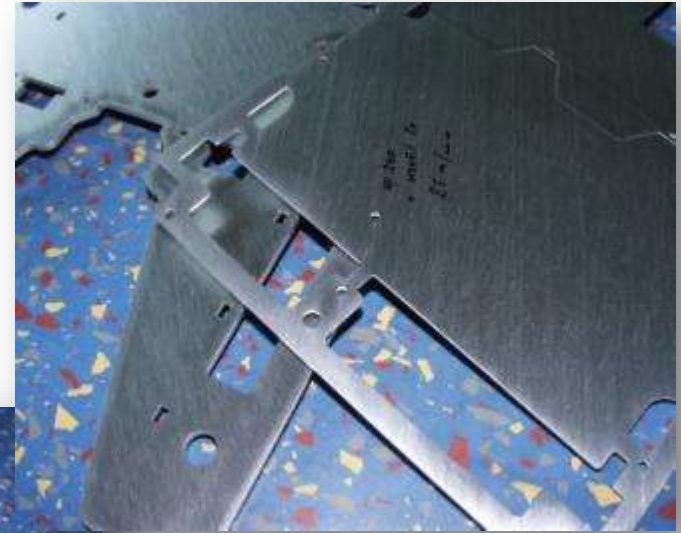
Surface finishing of stainless steel



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Deburring from Laser cutting





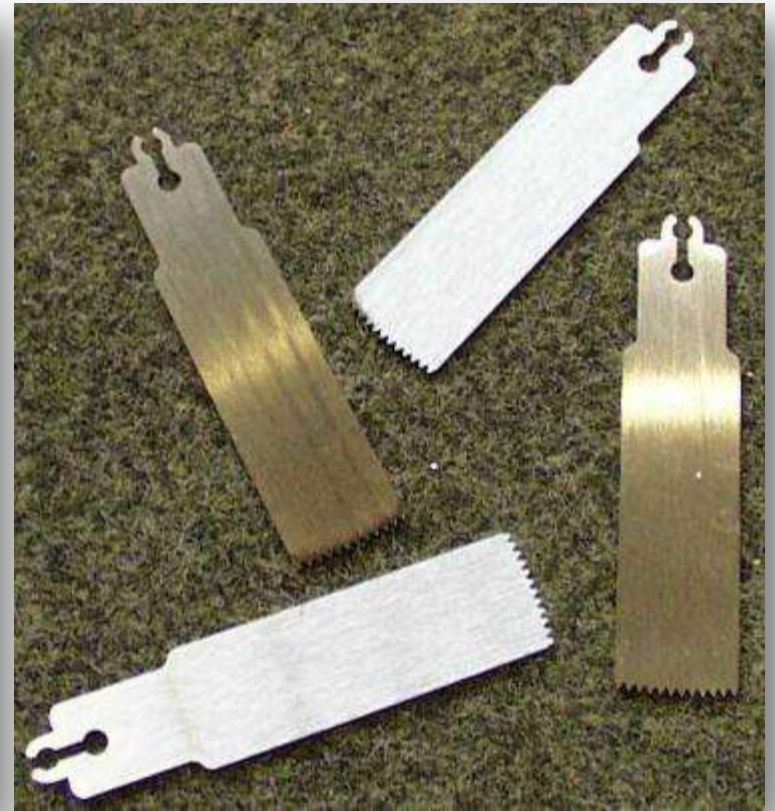
Deburring of bended piece on metal support



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Deburring of pieces cut by Laser fixed with microjoints





Surface finishing + deburring of Aluminium



**Wing's part of
Boeing 747**





Deburring of parts 0,3 mm balance sheet



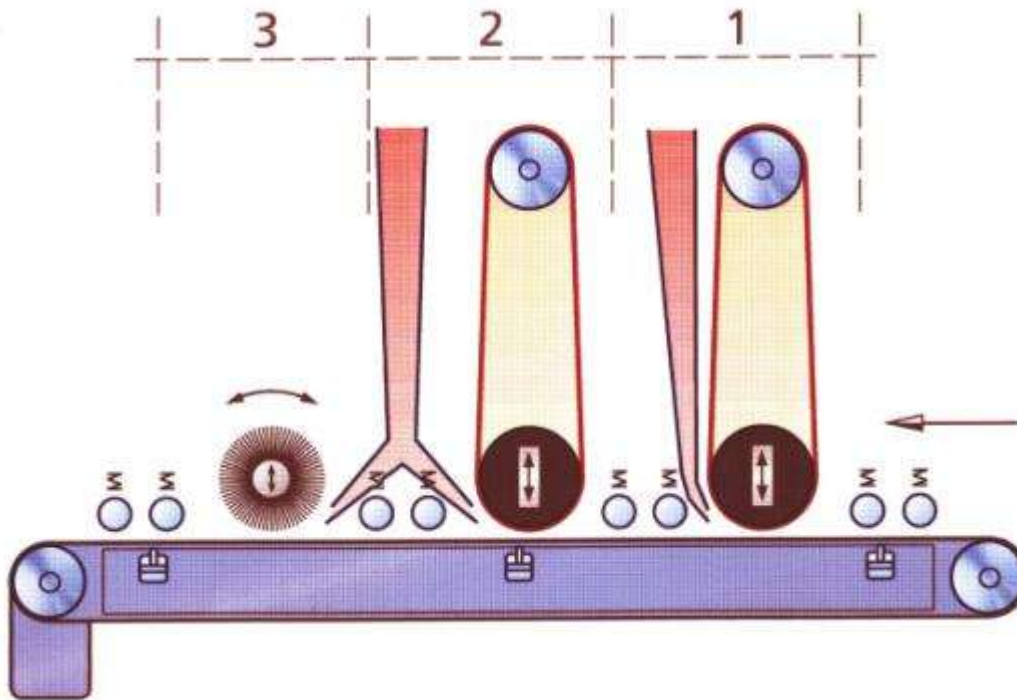
**Apache Elicopter AH-64
Rotor's part**





Burr removal and finish

G 3RRB 11 or 13





Application

- high gloss polishing
- decorative finishing
- deburring
- slag removal
- oxidation removal
- printed circuit board
- composite materials
- up formed parts



high gloss polishing

mirror finish is not an operation possible with G or M machines,

this operation needs a multiple abrasive heads, and it requires a pre-grained and pre-buffed pass,

the process requires multiple passes,

with Gecam machine the parts can reach a pre-mirror output,



decorative finishing

It is a complete different process than deburring,
many components need the hairline finish, especially the
items made by stainless steel,

most important factors:

- abrasives,
- dry or wet operation,
- coolant system,
- material
- initial finish
- end finish,





deburring

**mechanical burrs,
thermal burrs,**

mechanical burrs come from:

- shearing**
- punching – nibbling**
- drilling**

thermal burrs come from:

- oxy cut**
- plasma cutting**
- laser cutting**



deburring

how to remove the burrs:

abrasive belt - R

barrel brush - B

top brush - H





deburring

The abrasive belt – R unit:

driven and supported by a contact drum,

harder contact drum is more aggressive,

**softer contact drum with flexible abrasive belt
copies the shape of the parts, but can cause
rounding on parts,**

**it also important the speed of abrasive belt, the
variable speed allows different applications**



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deburring

The barrel brush – B unit:

perfect tool for finishing,

good tool to remove burrs,

can provide rounded edge,





deburring

The top brushes - H unit:

ideal solution for deburring,

rotating and oscillating movement,

**removal of secondary burrs created by the
abrasive belt,**





slag grinding

slag is on thicker parts cut by plasma or laser, this thermal is very tough to remove,

it is necessary multiple heads and top or barrel brush,

1° step is the removal of primary burr with 2 abrasive belt,

2° step is the removal of secondary burr with barrel or top brush,



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oxidation removal

oxidation from laser or plasma cut,

it requires flexible abrasive able to reach even the holes of the parts

we use stainless steel top brush, with flexible aggressive hairs



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printed circuit boards

sanding printed circuit, removal of
the paste

better wet operation,



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up formed parts

the top brushes are suitable for this use

the flexible stainless steel wires can get around the tabs,

many type of brushes available for any operation,



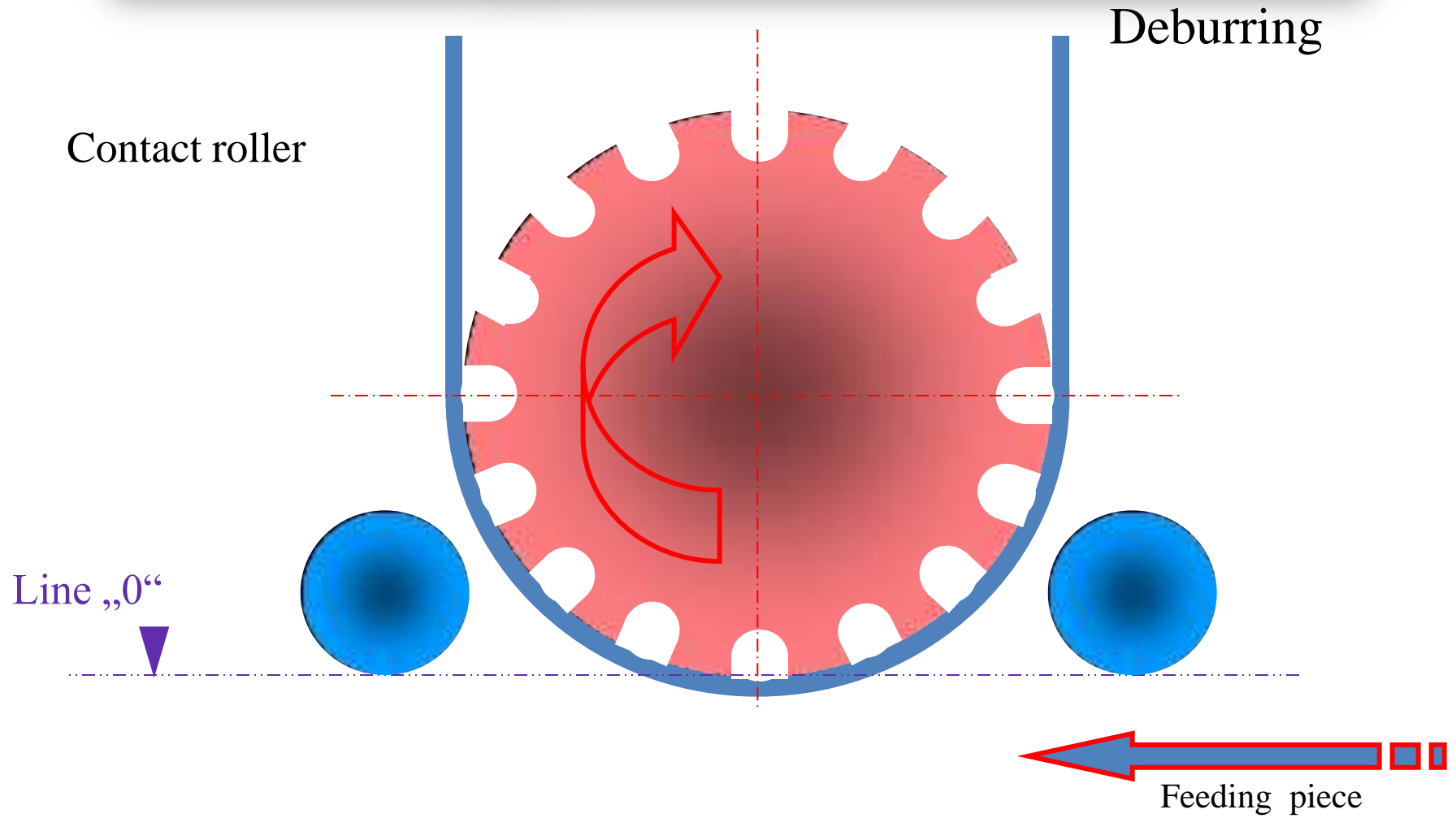
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Deburring

- the function

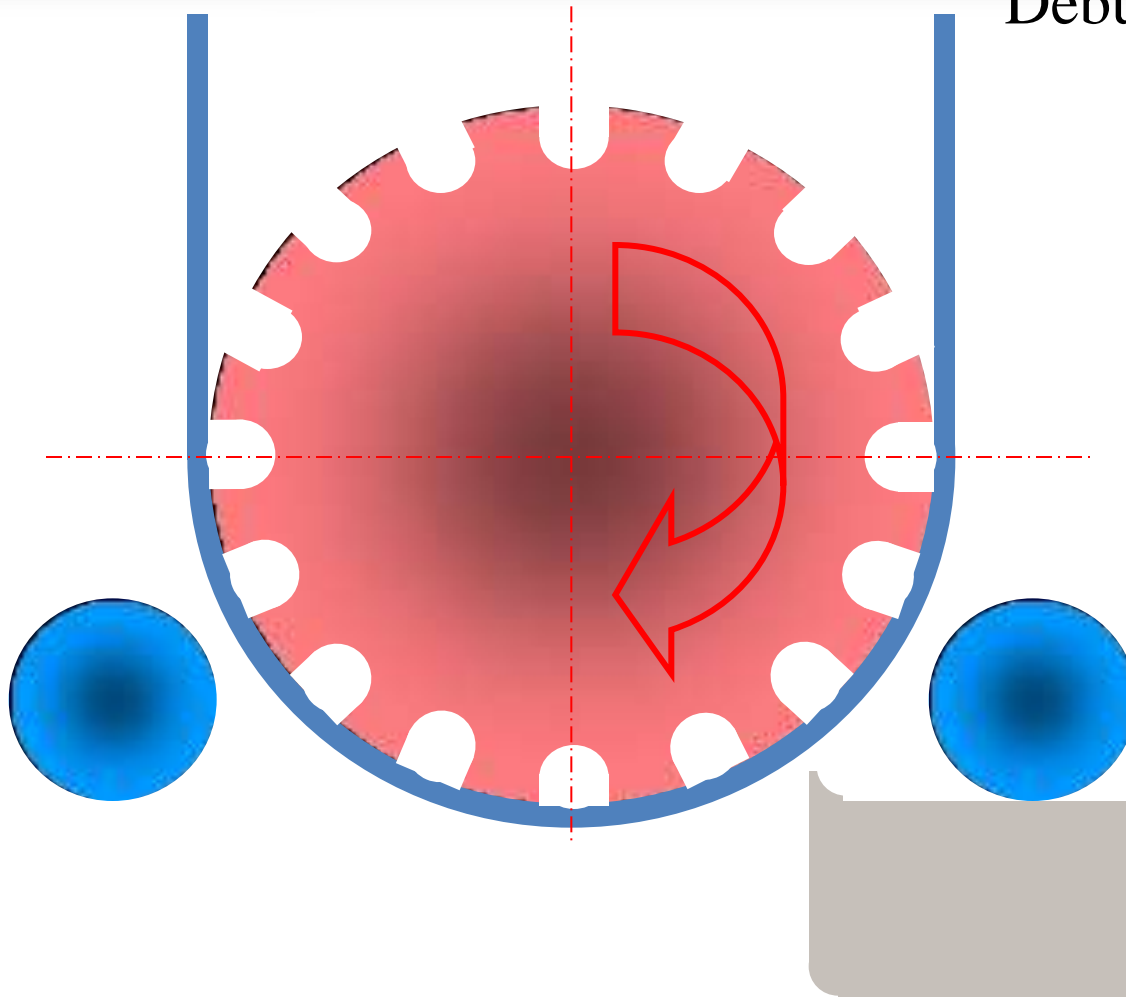
GECAM



GECAM



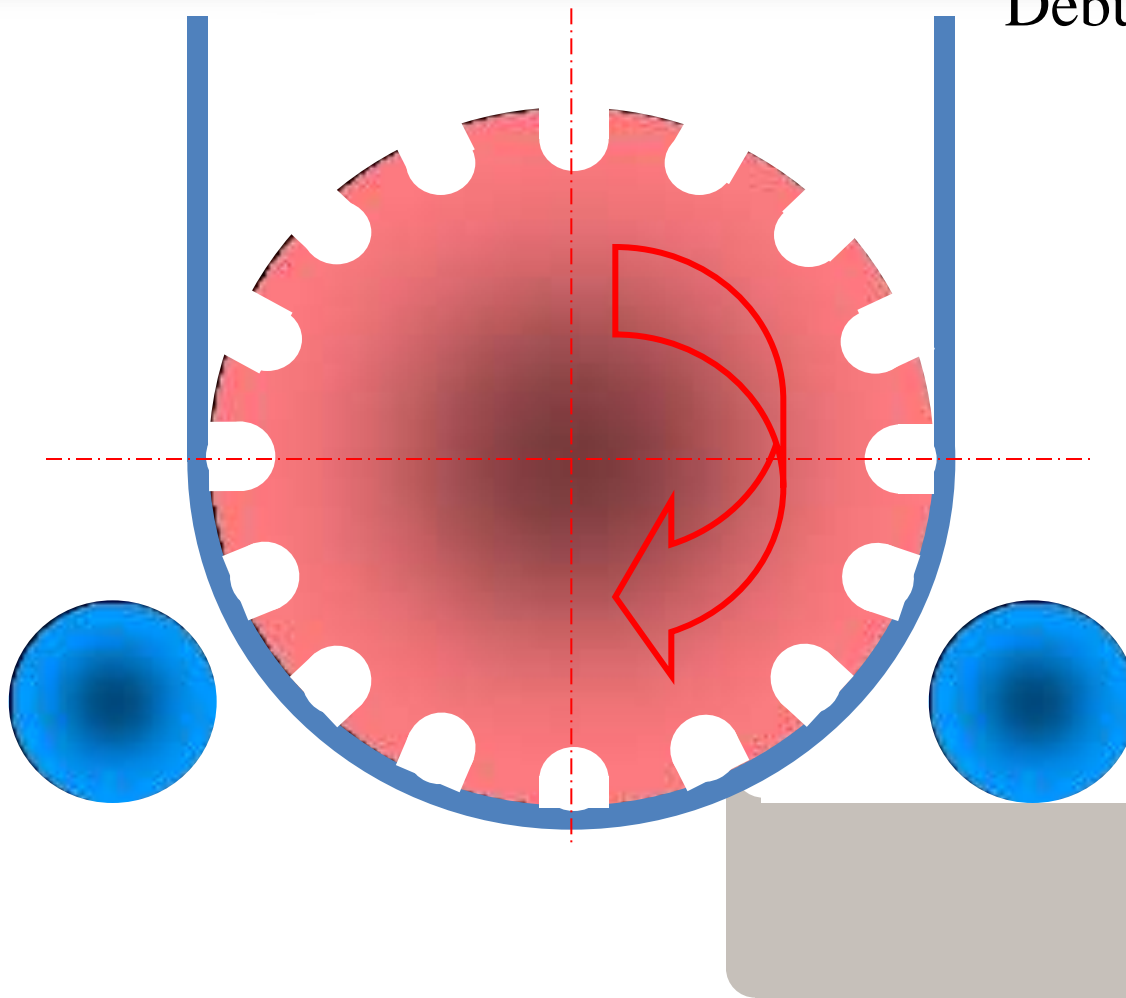
Deburring



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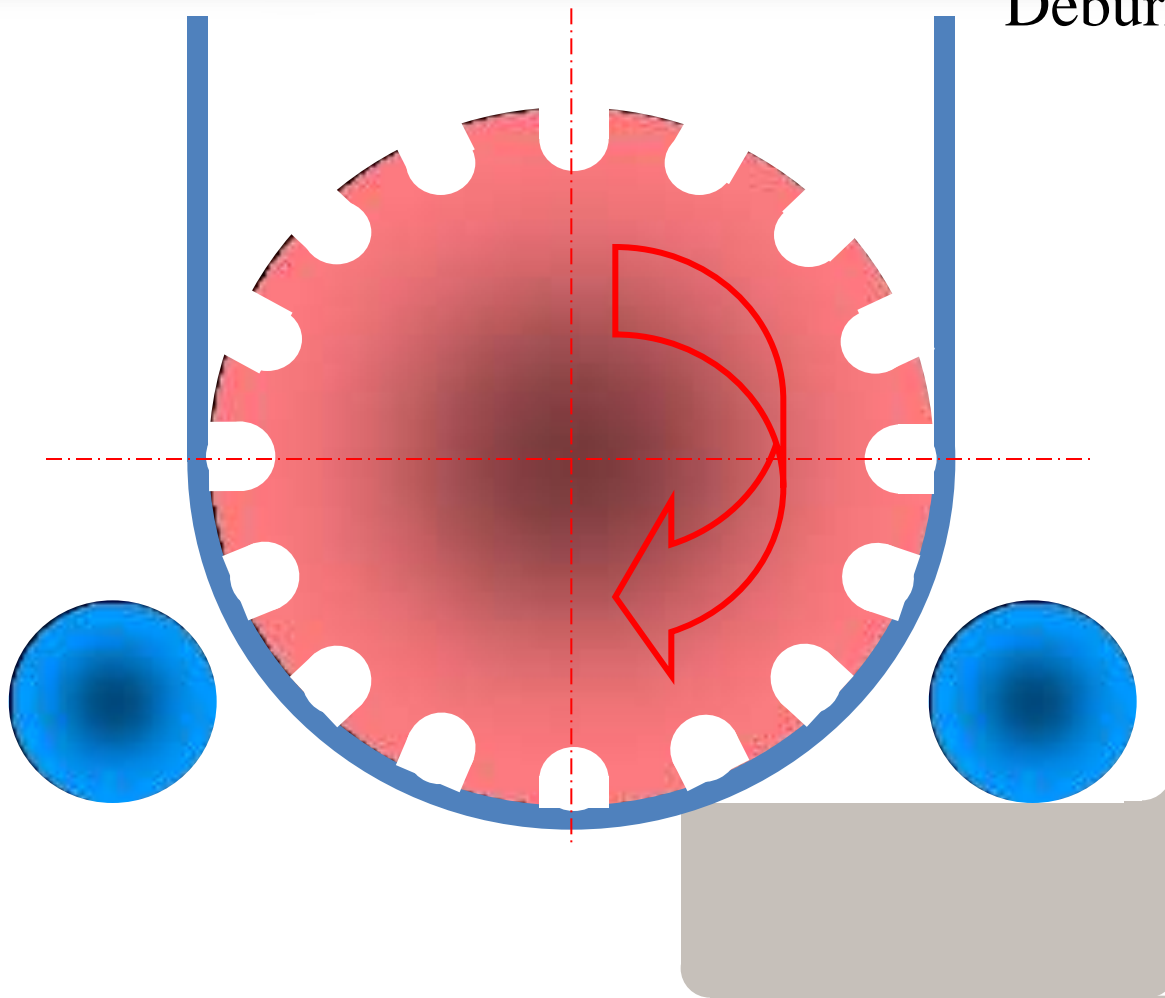
Deburring



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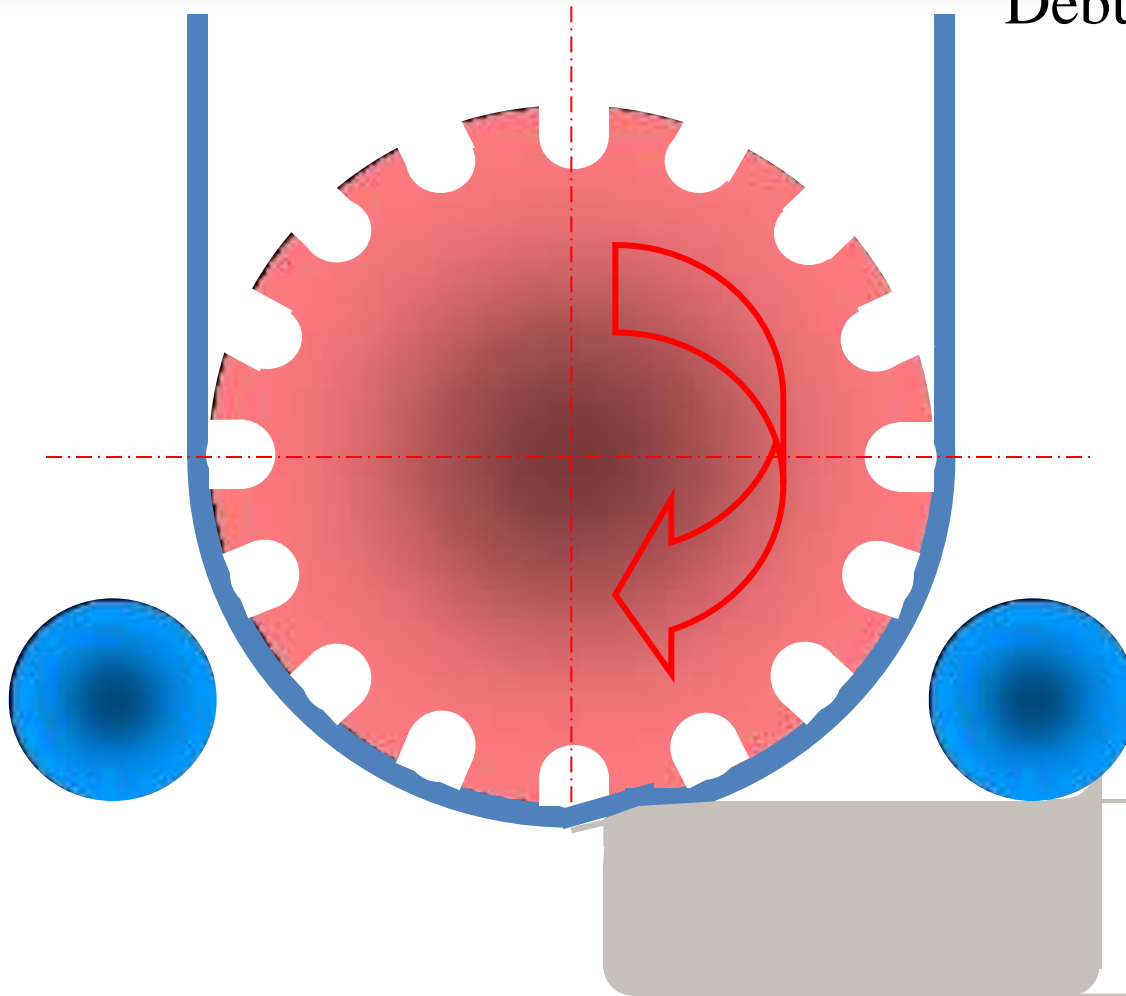


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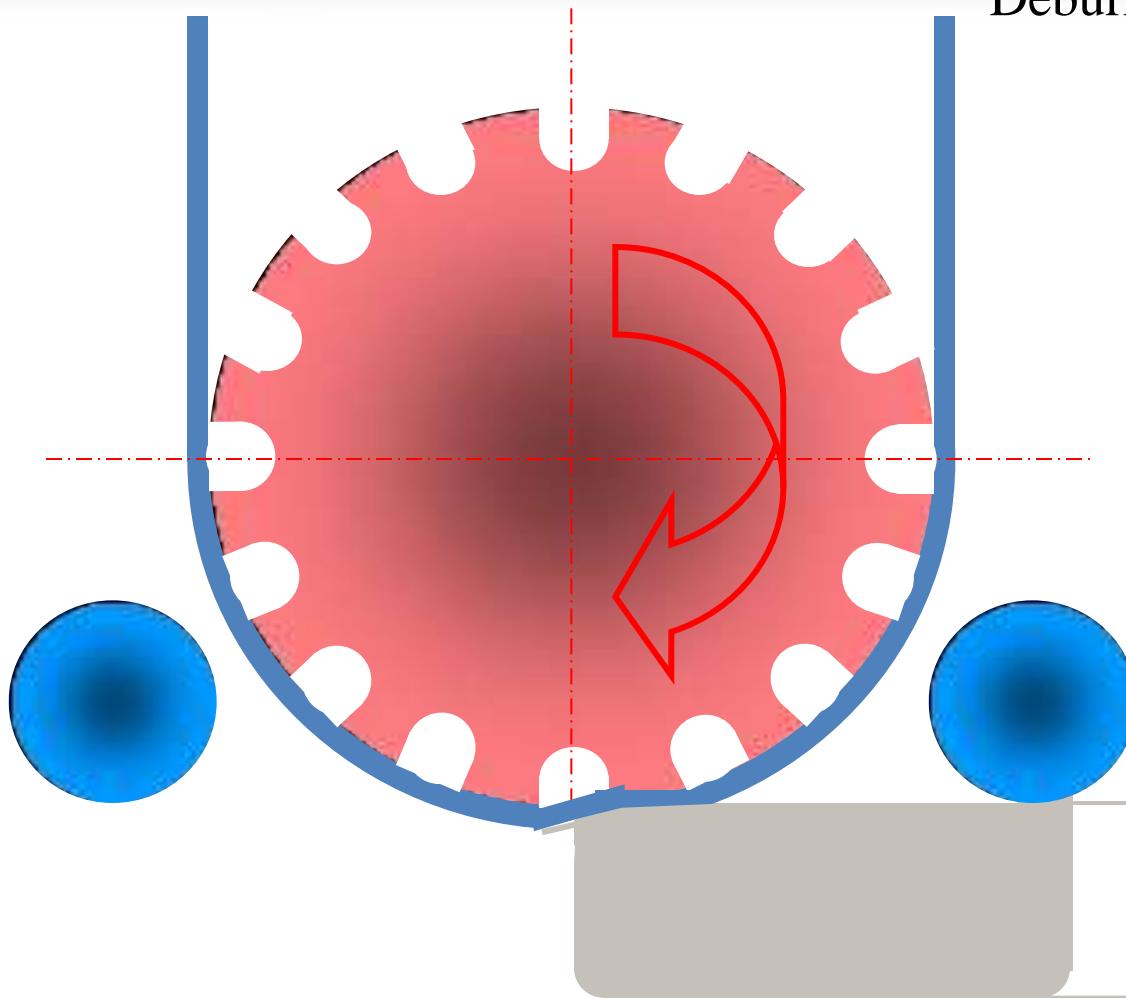
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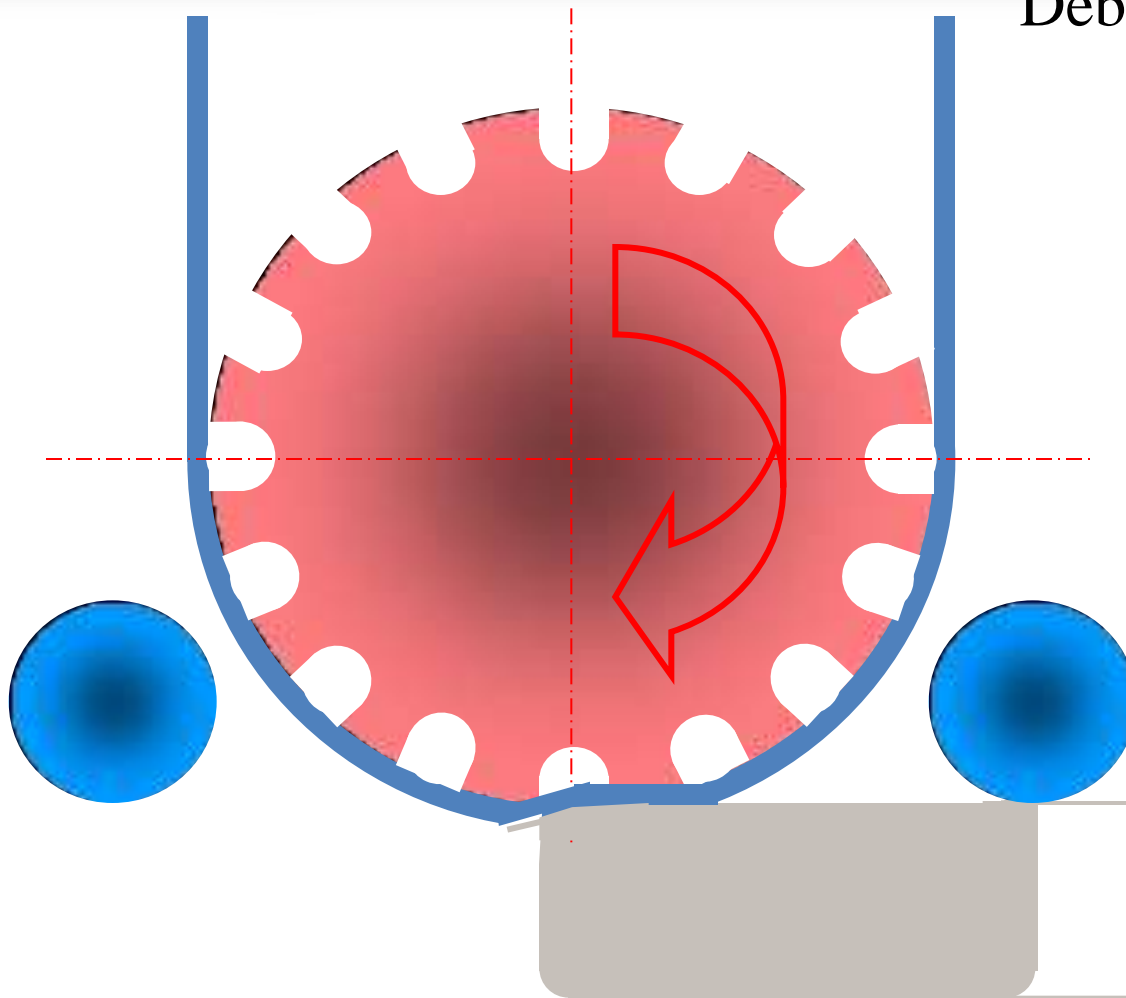
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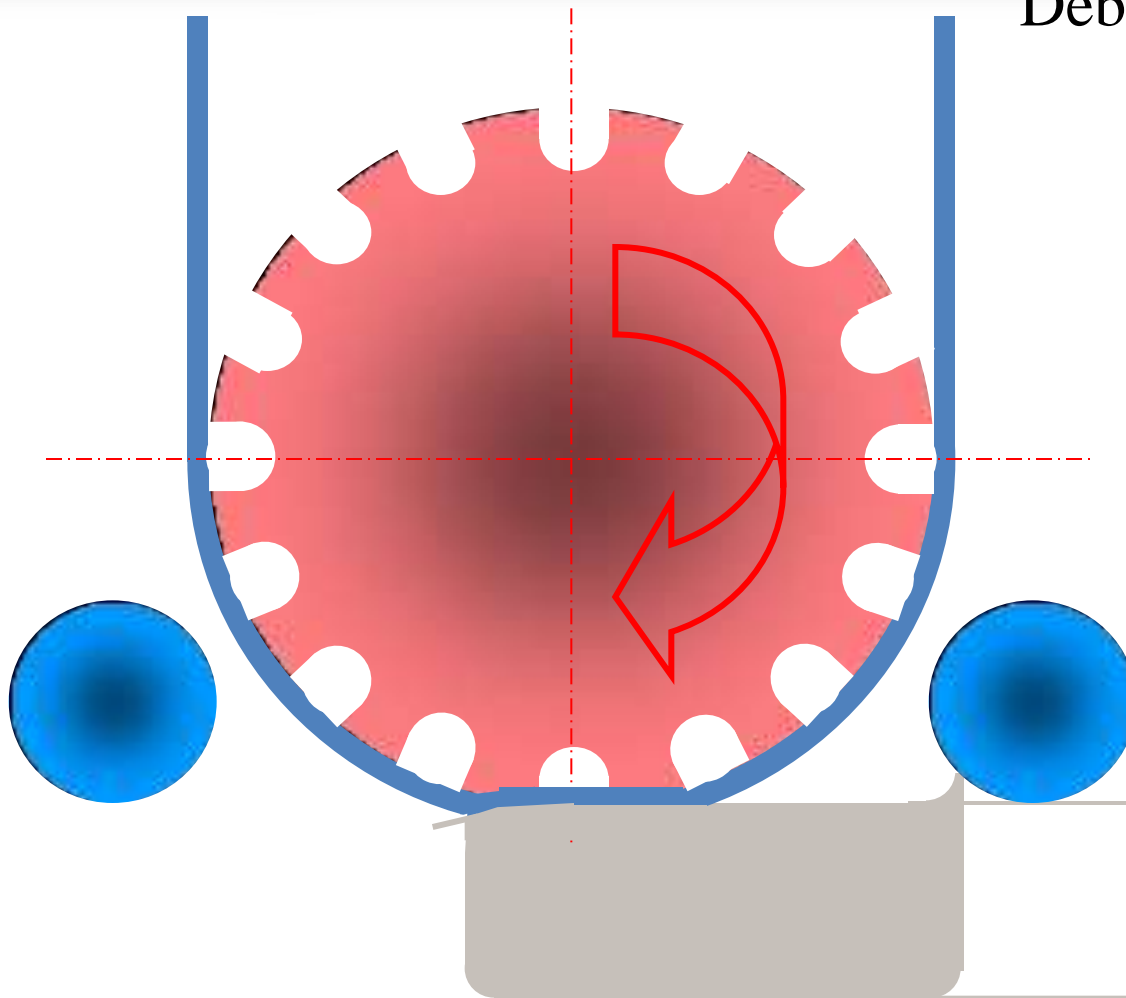
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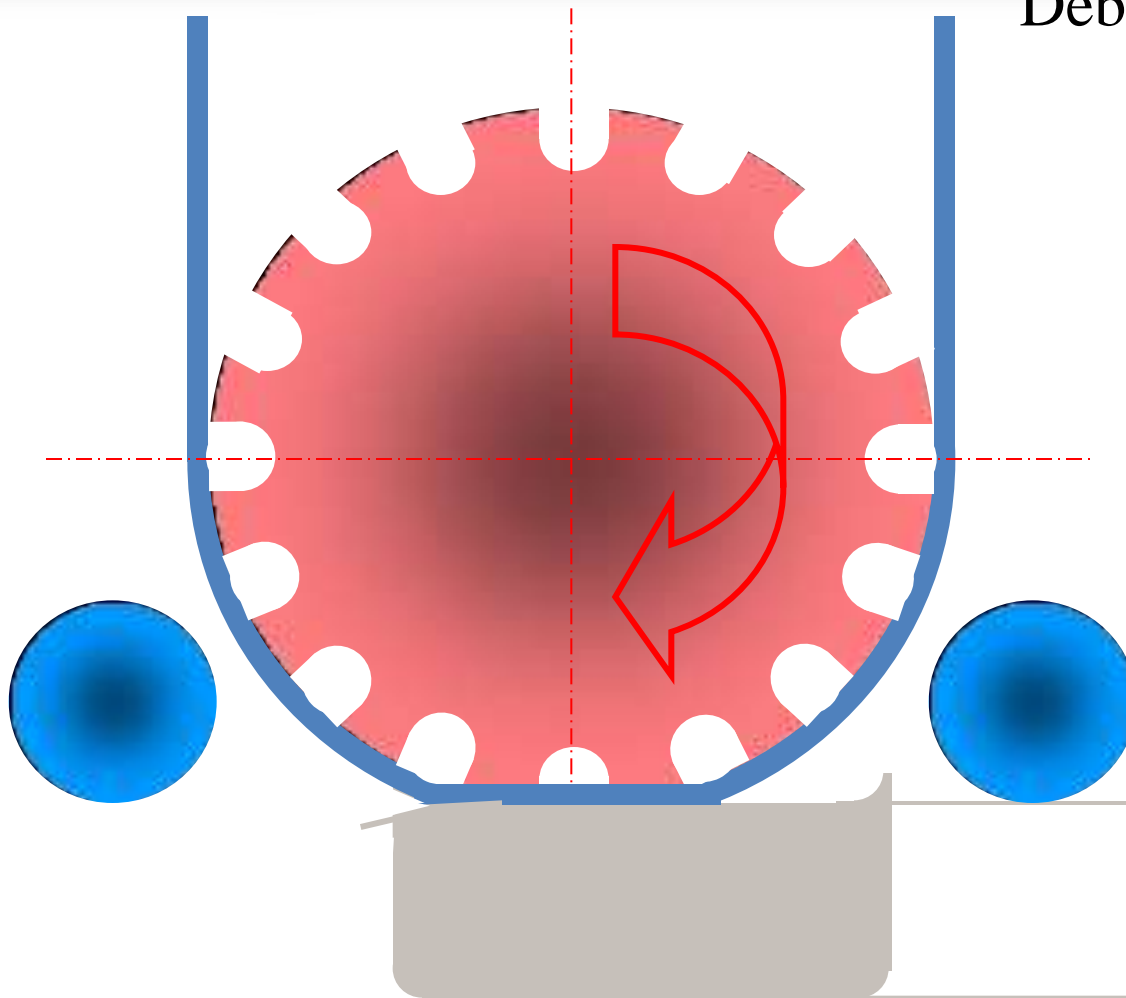
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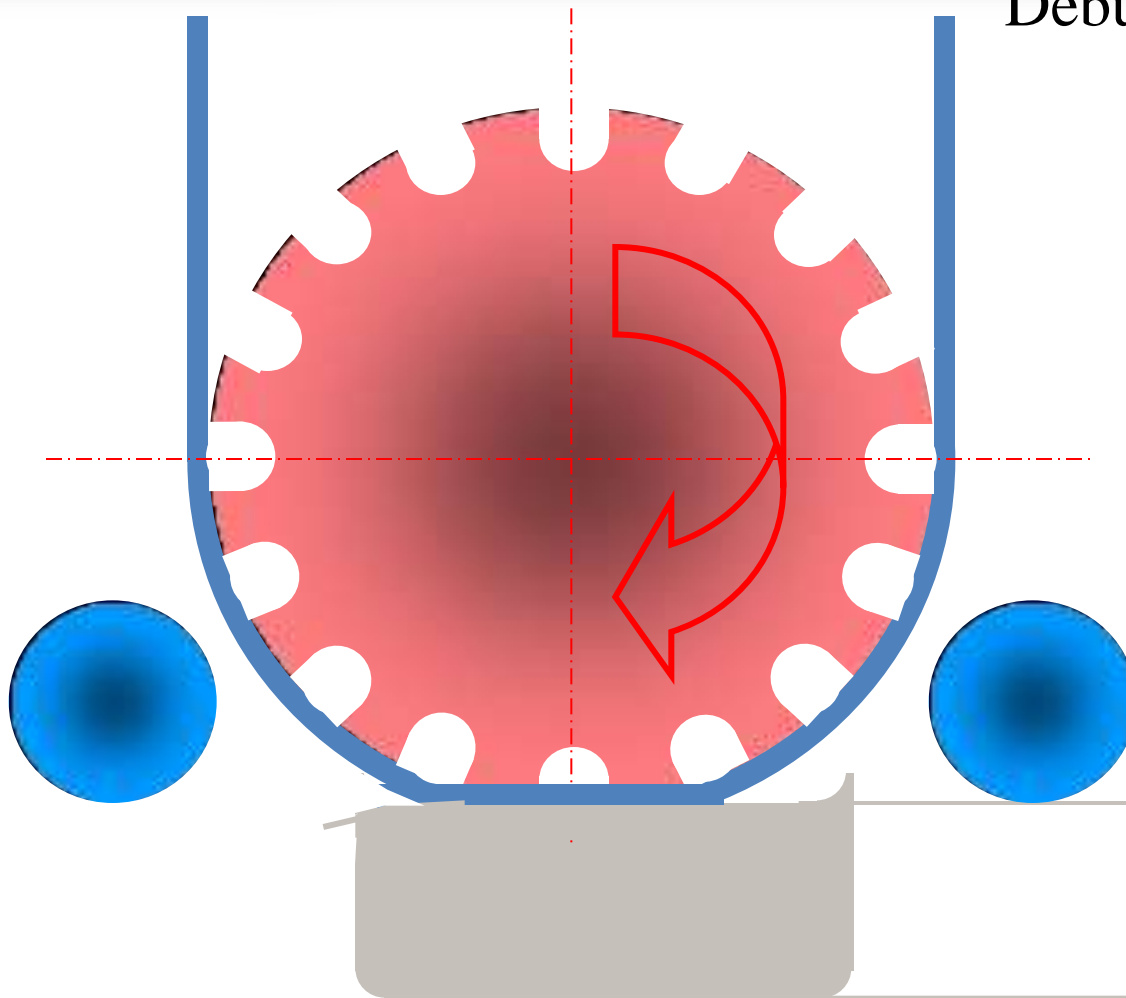
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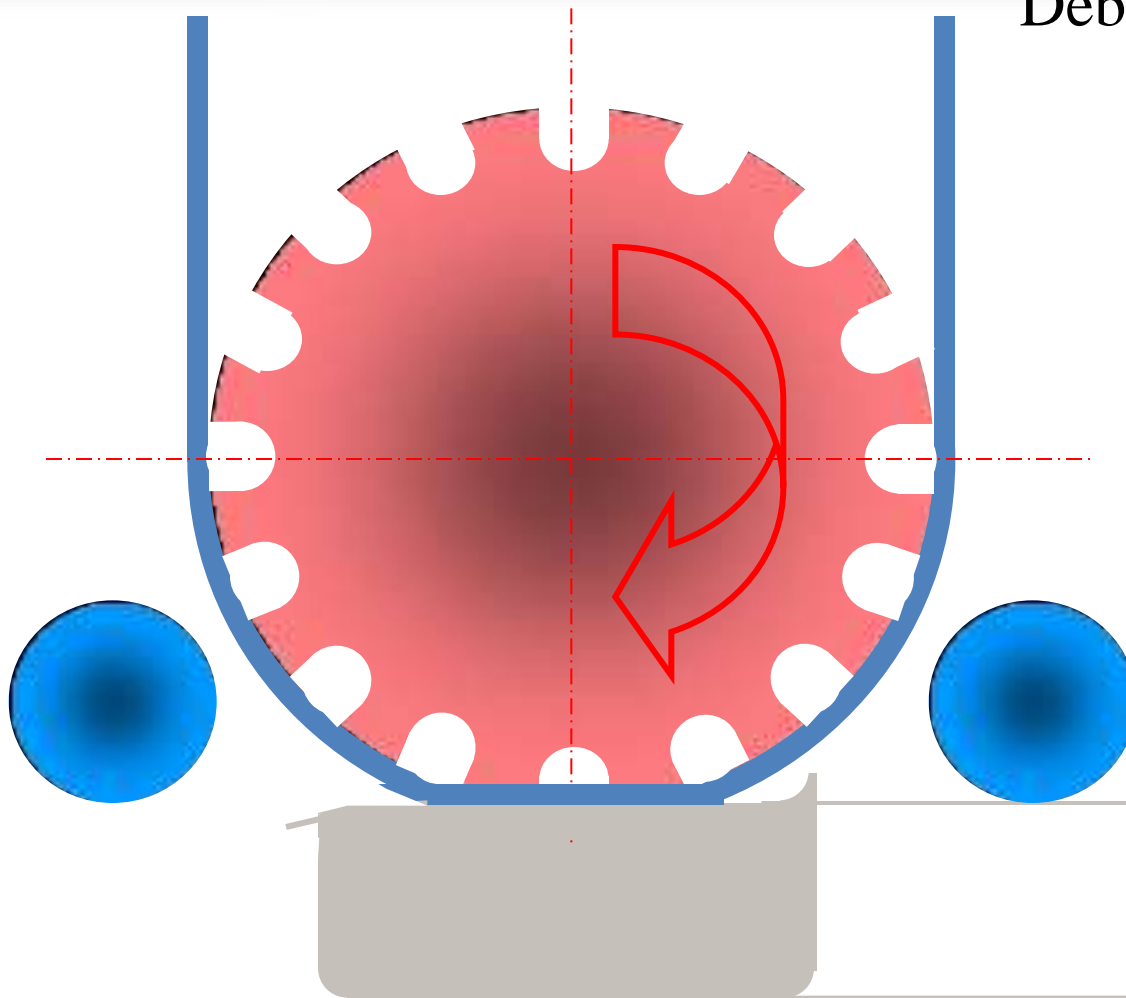
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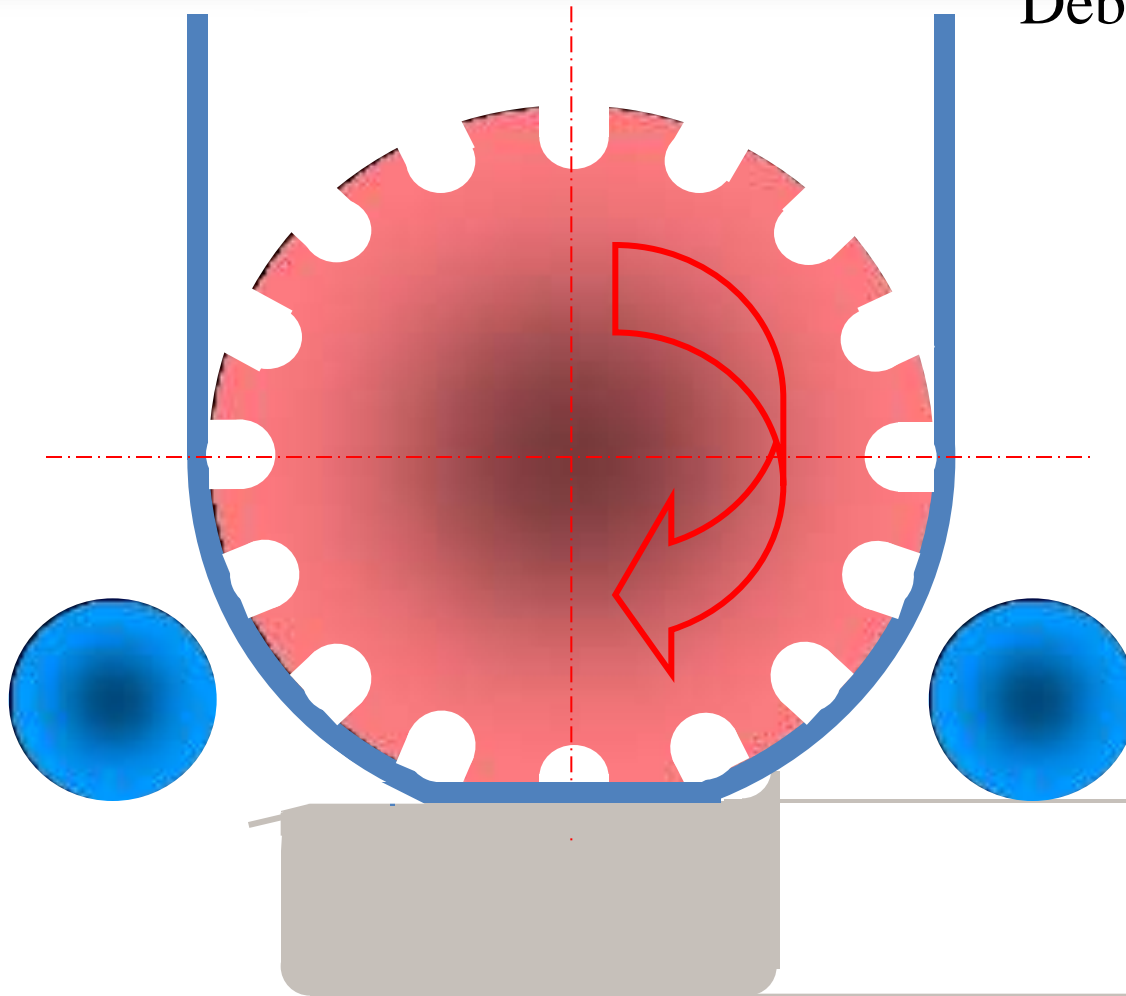
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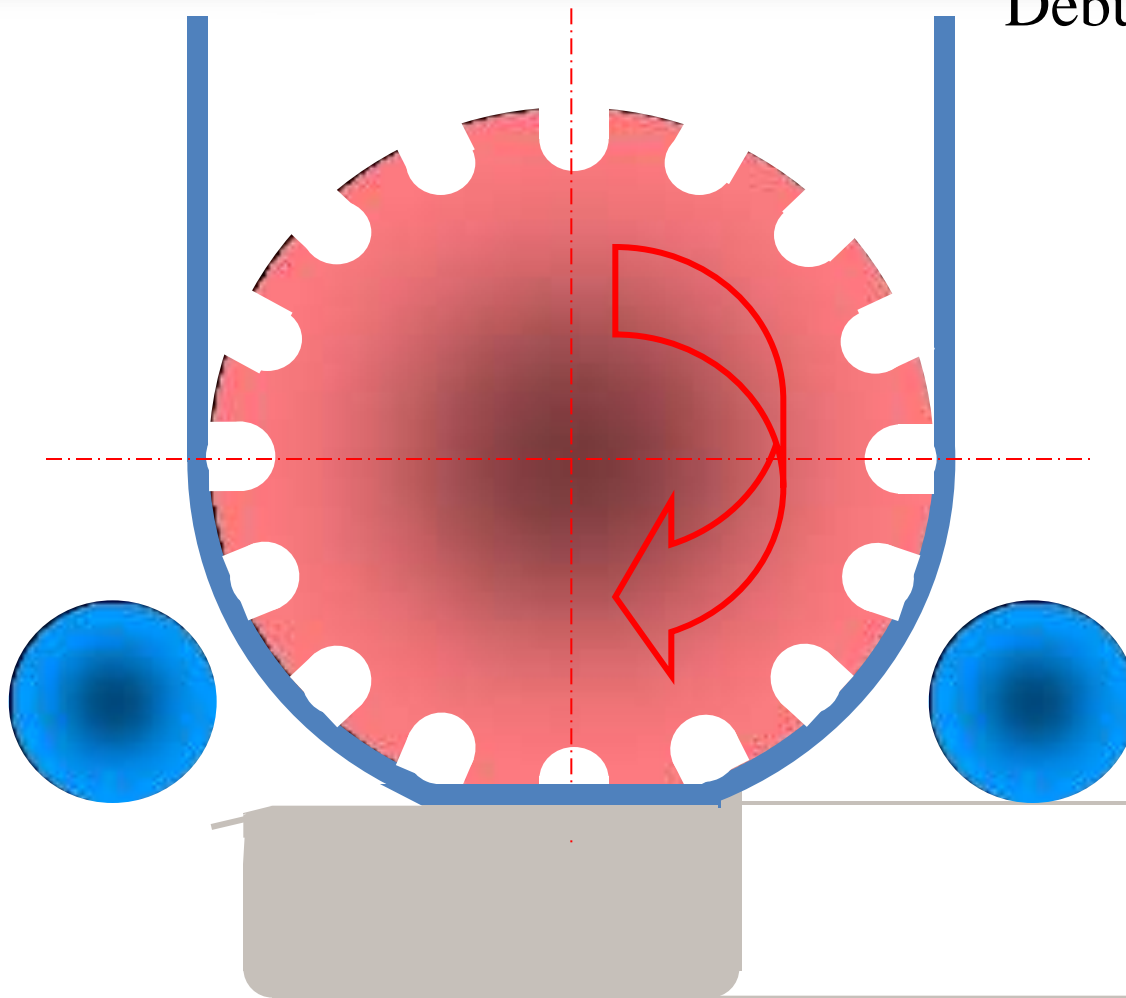
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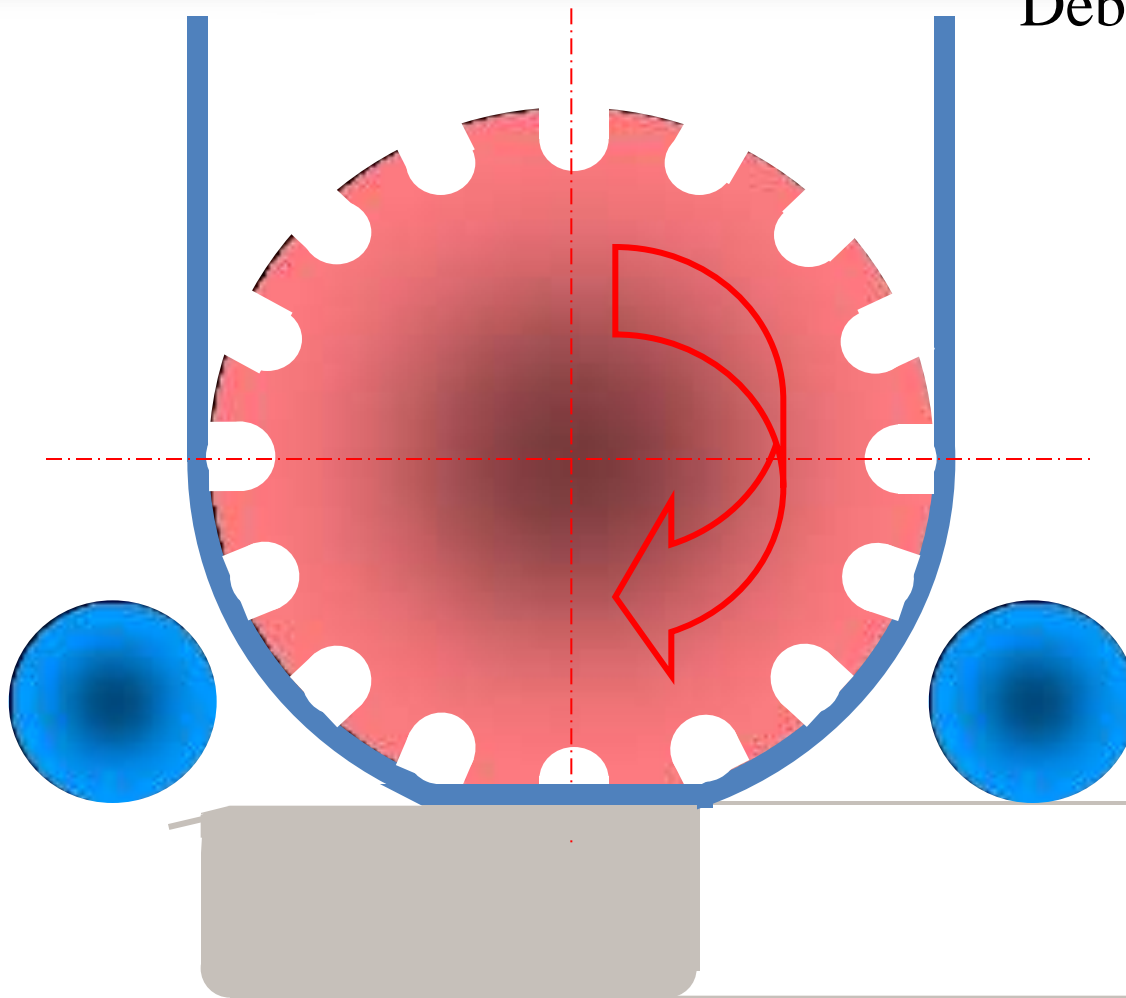
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GECAM



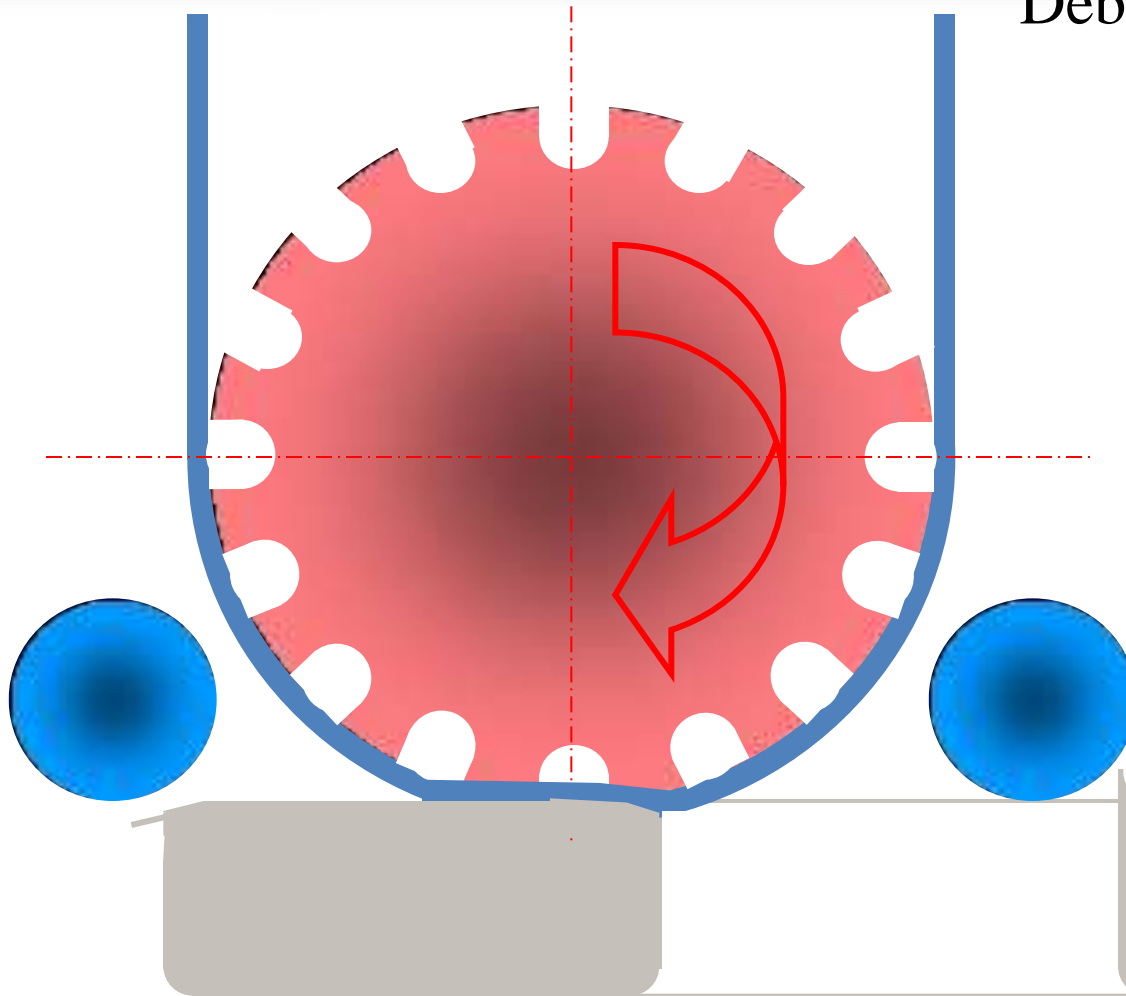
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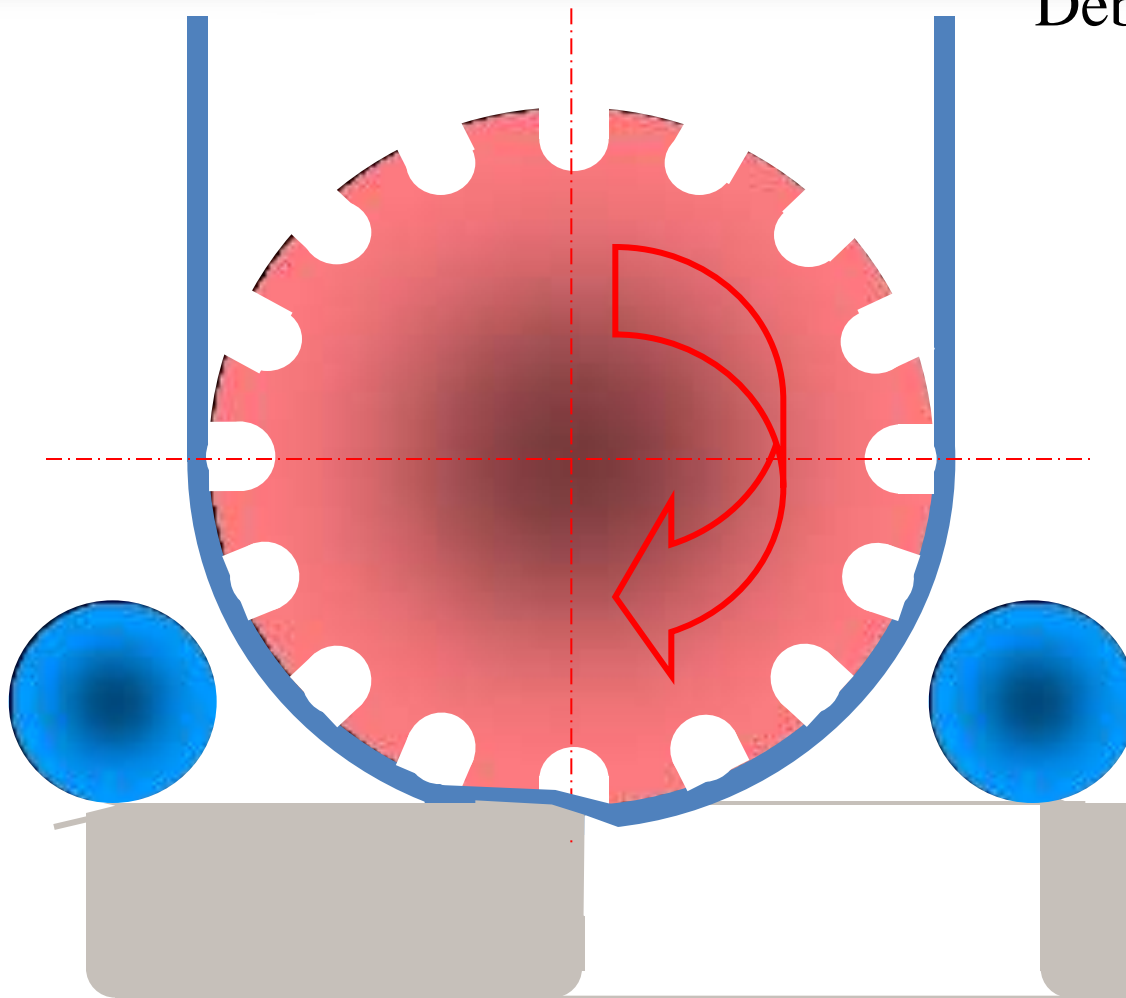
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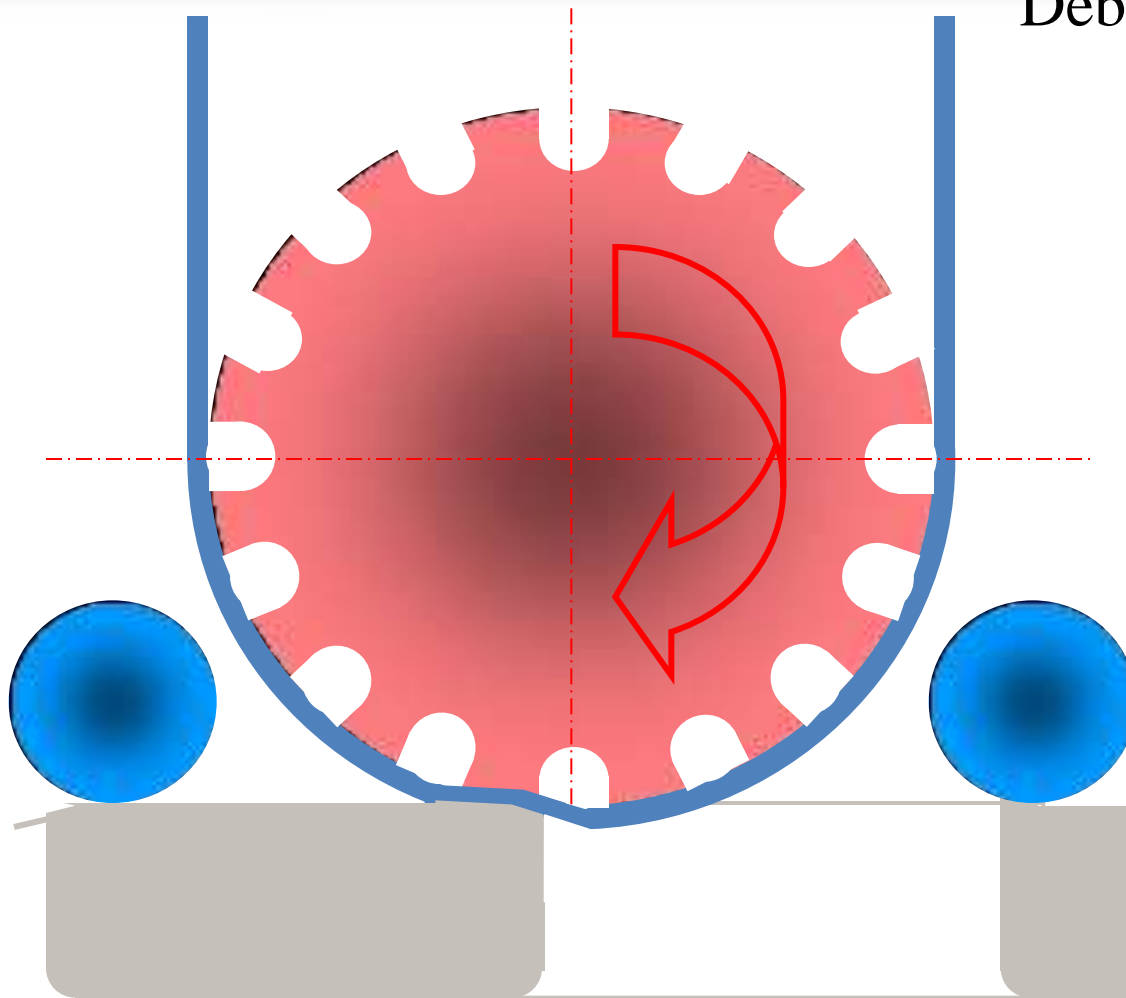
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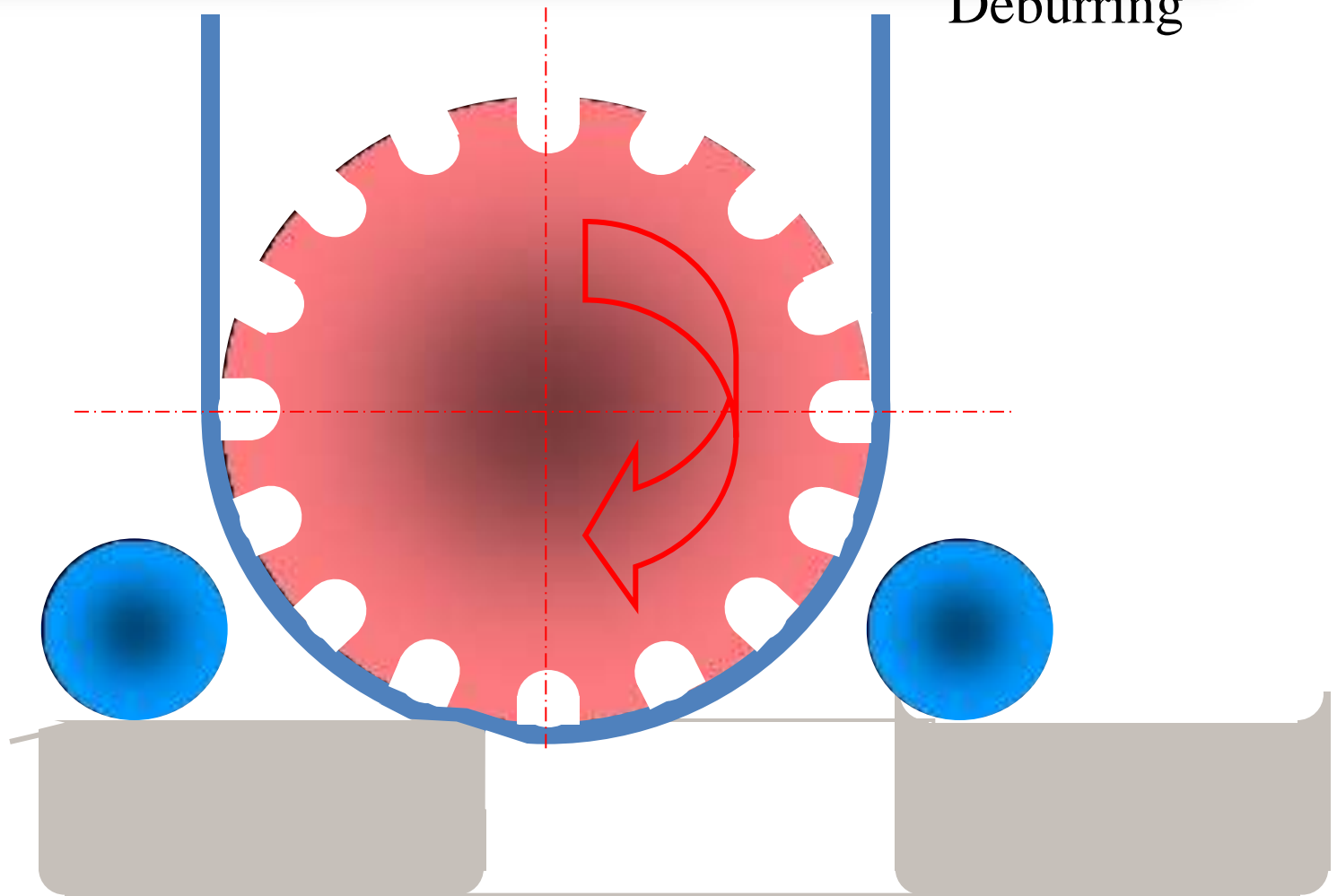
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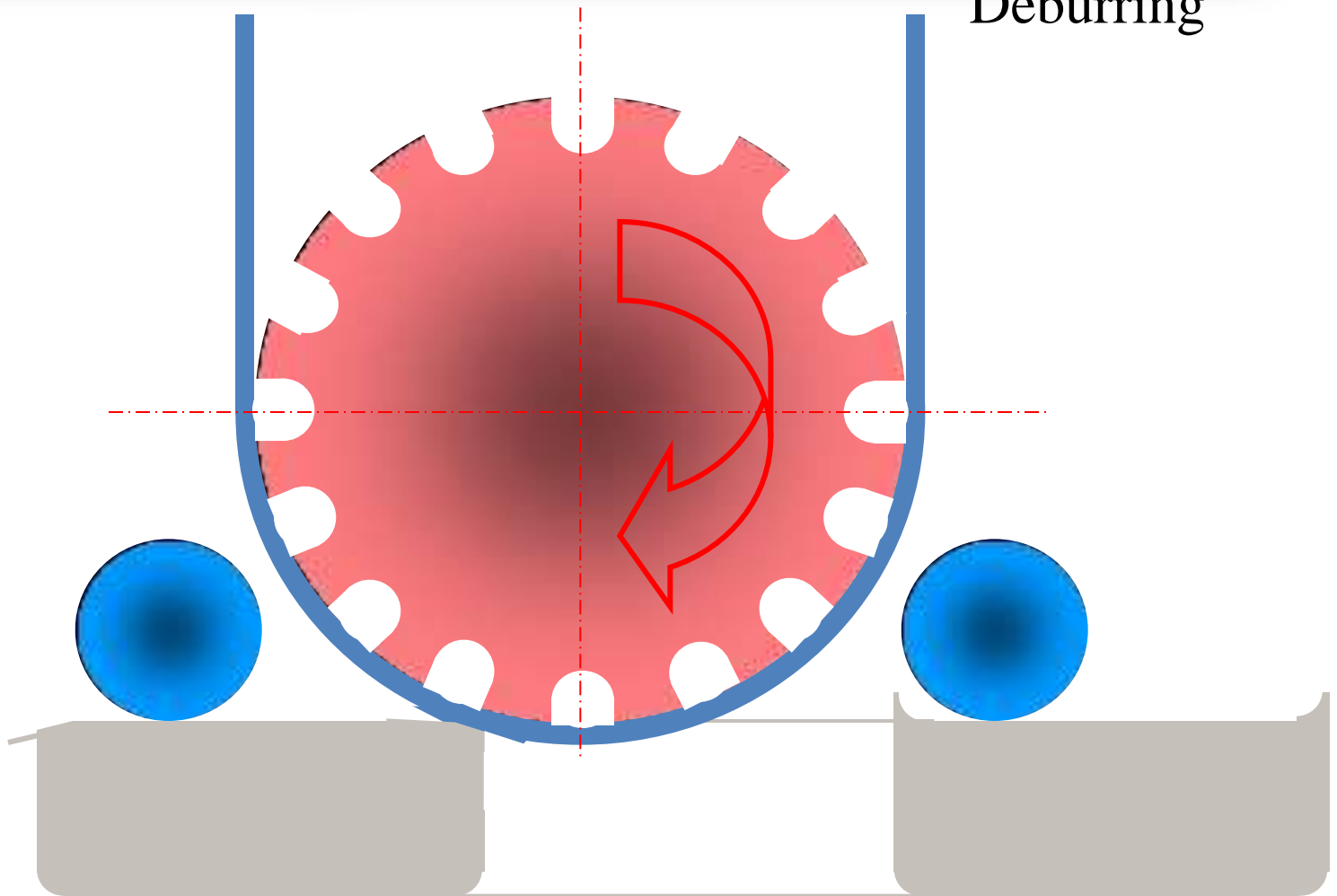
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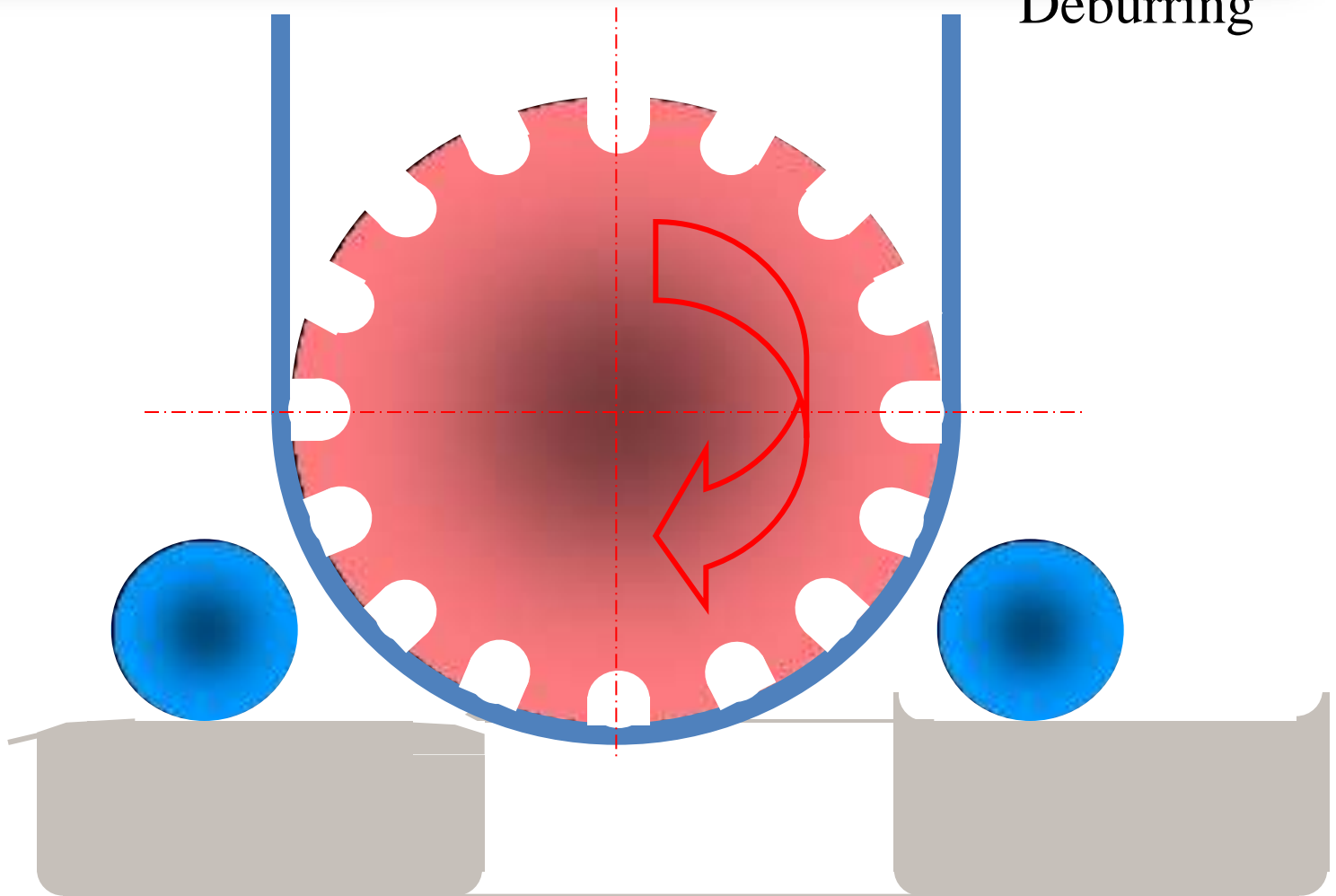
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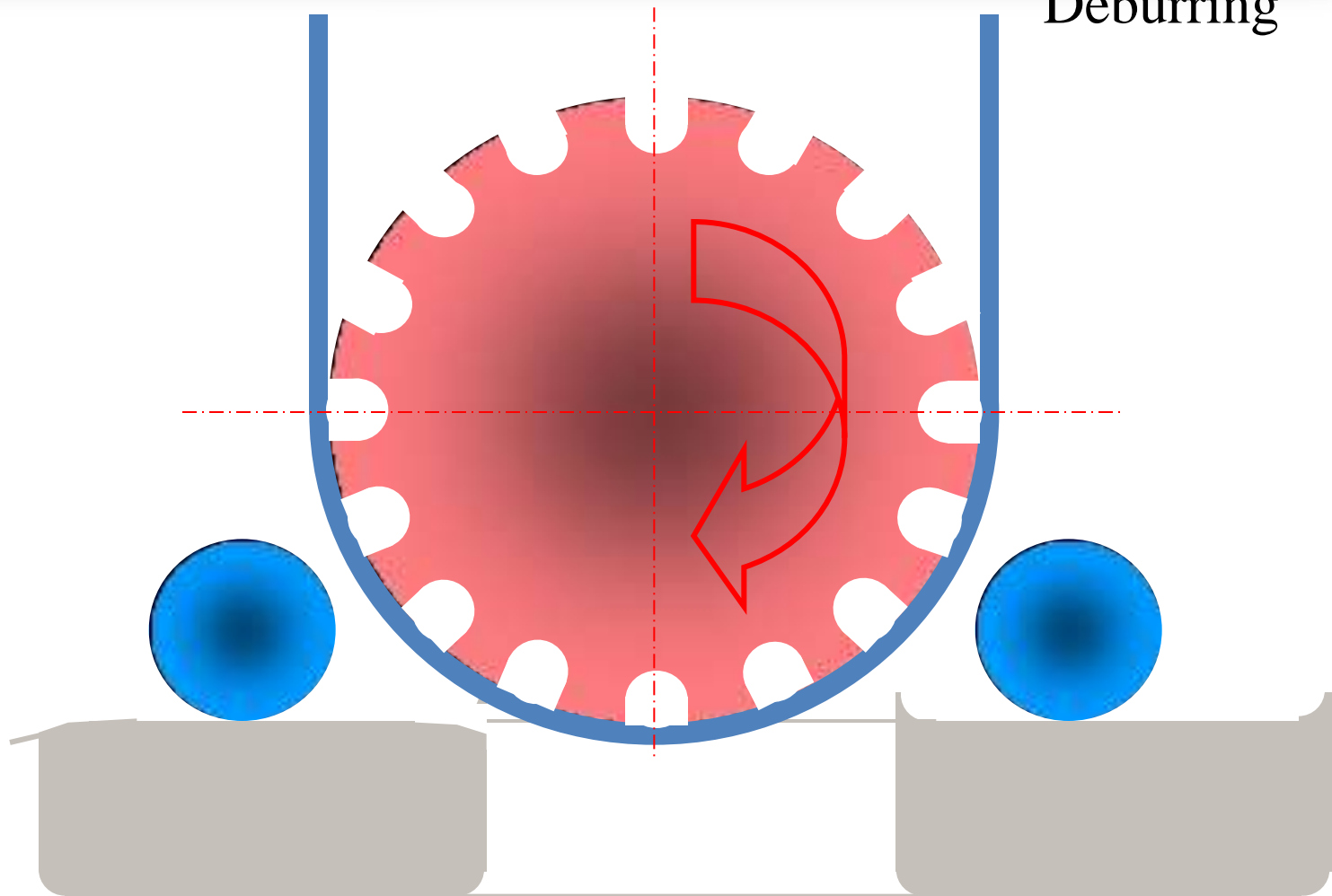
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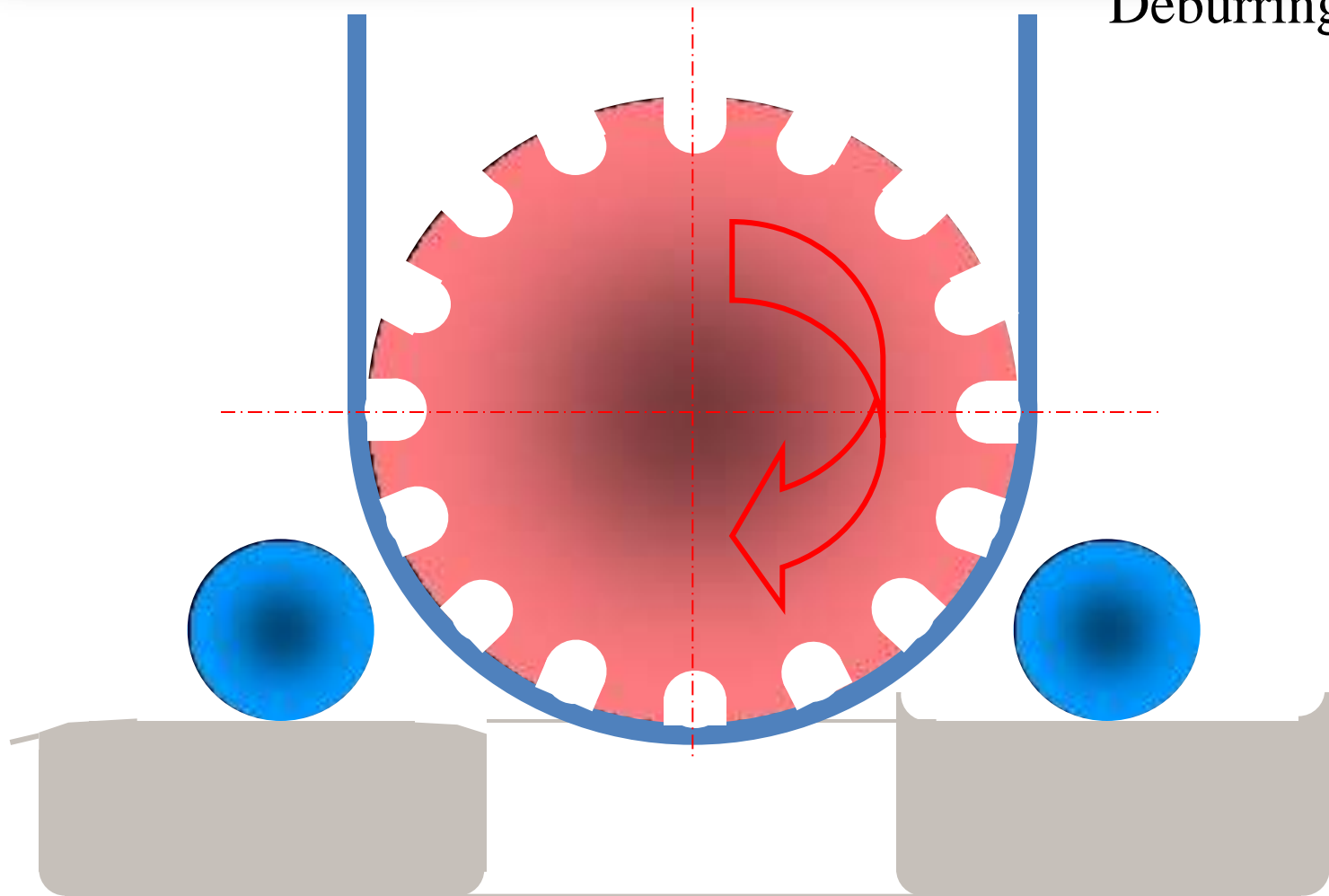
Deburring



GECAM



Deburring

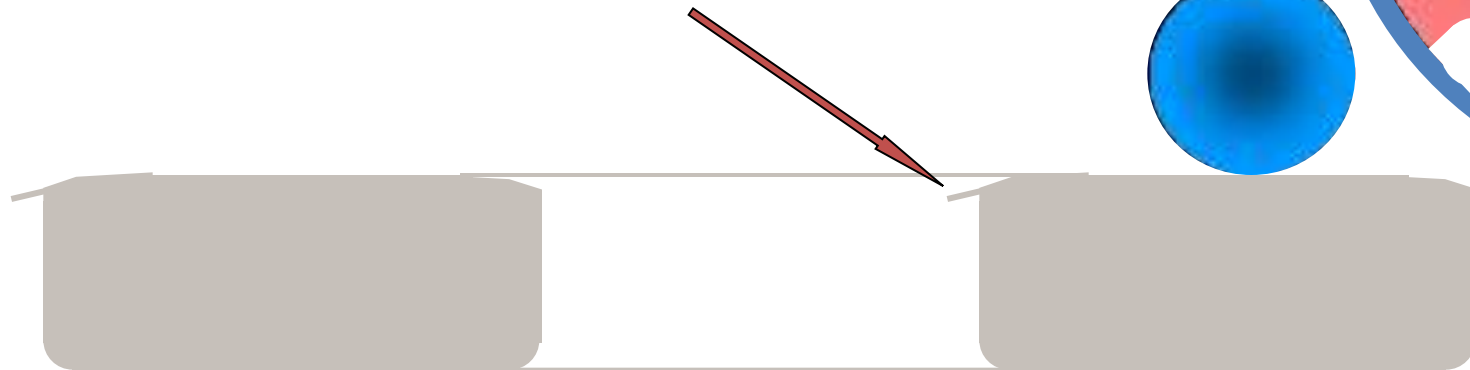




Deburring

Deburring operation with belt

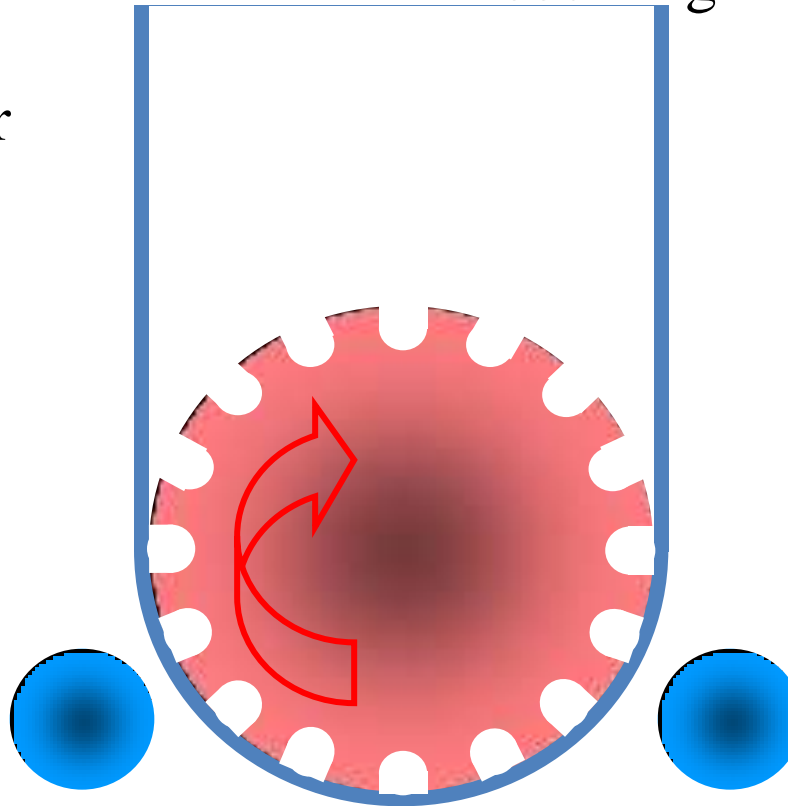
Second burr made by belt





Deburring

1. Contact roller

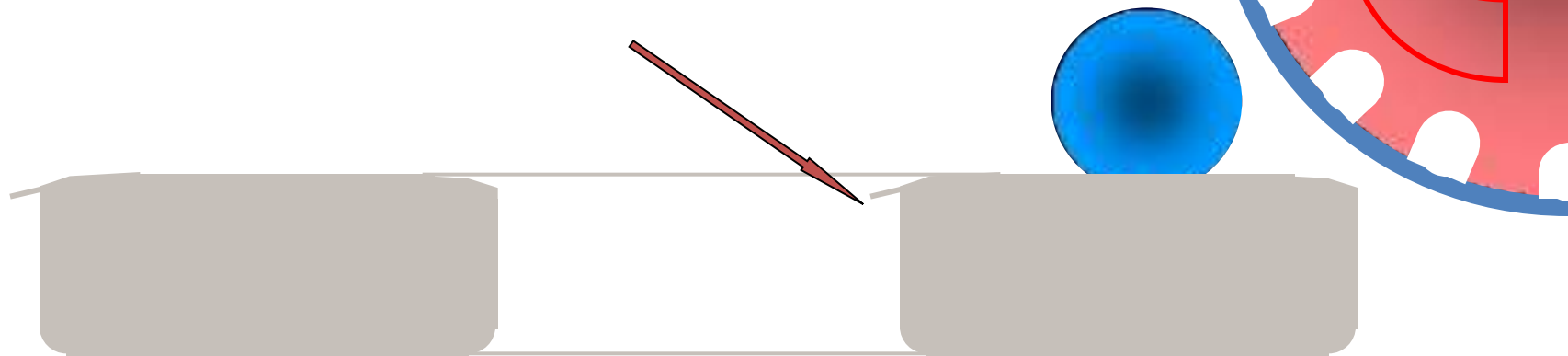


G – 1R



Deburring

The second burr must be removed by Brush

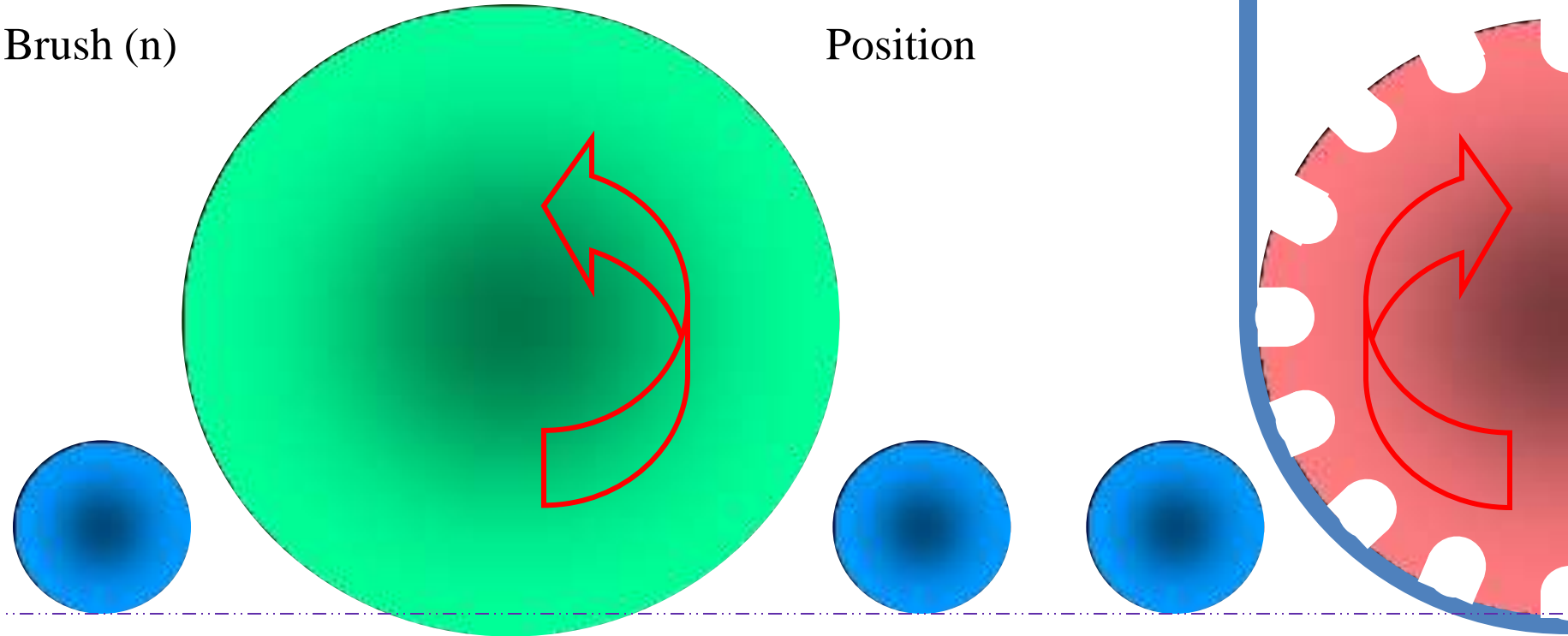




Deburring

Brush (n)

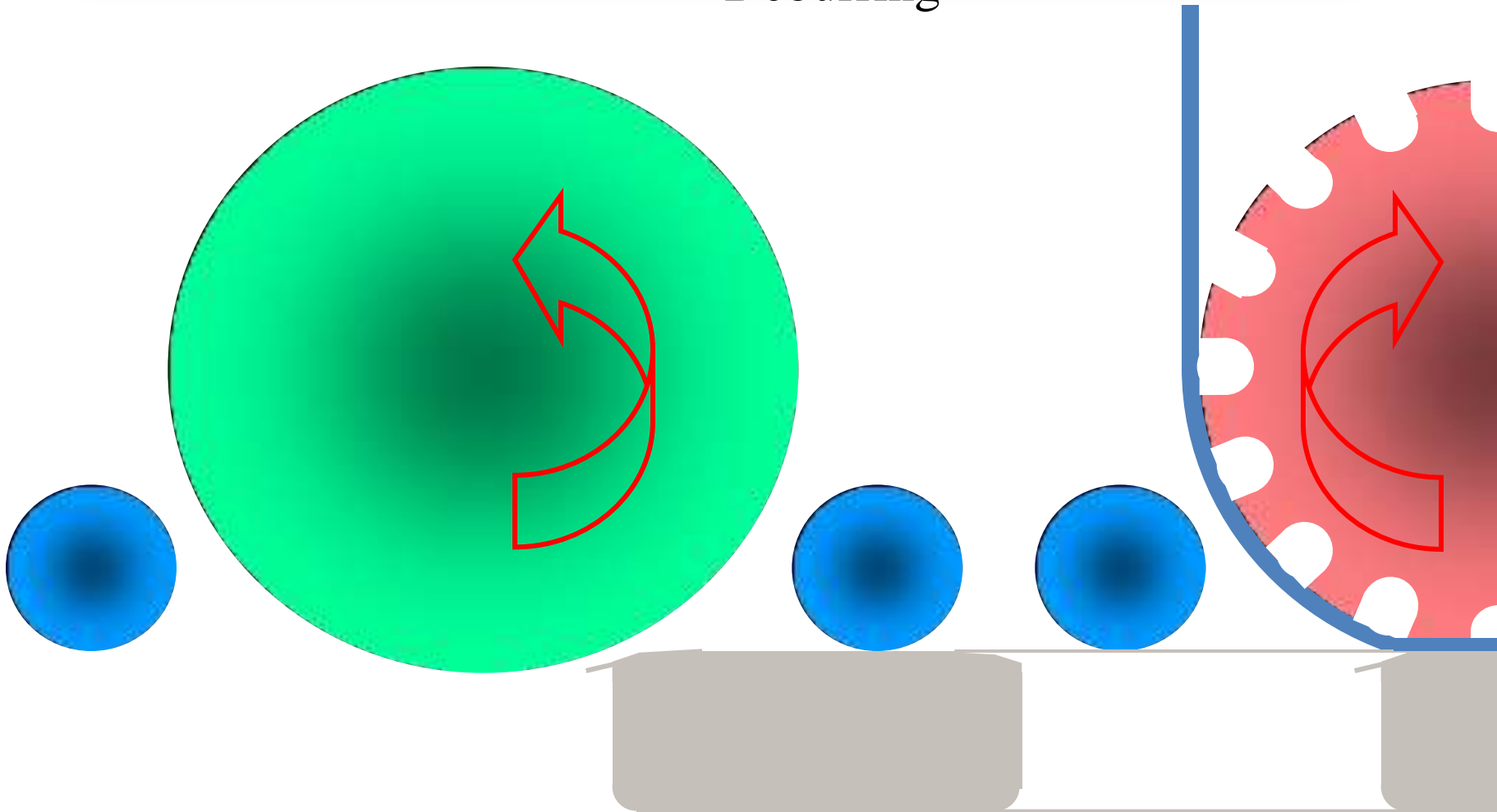
Position



GECAM

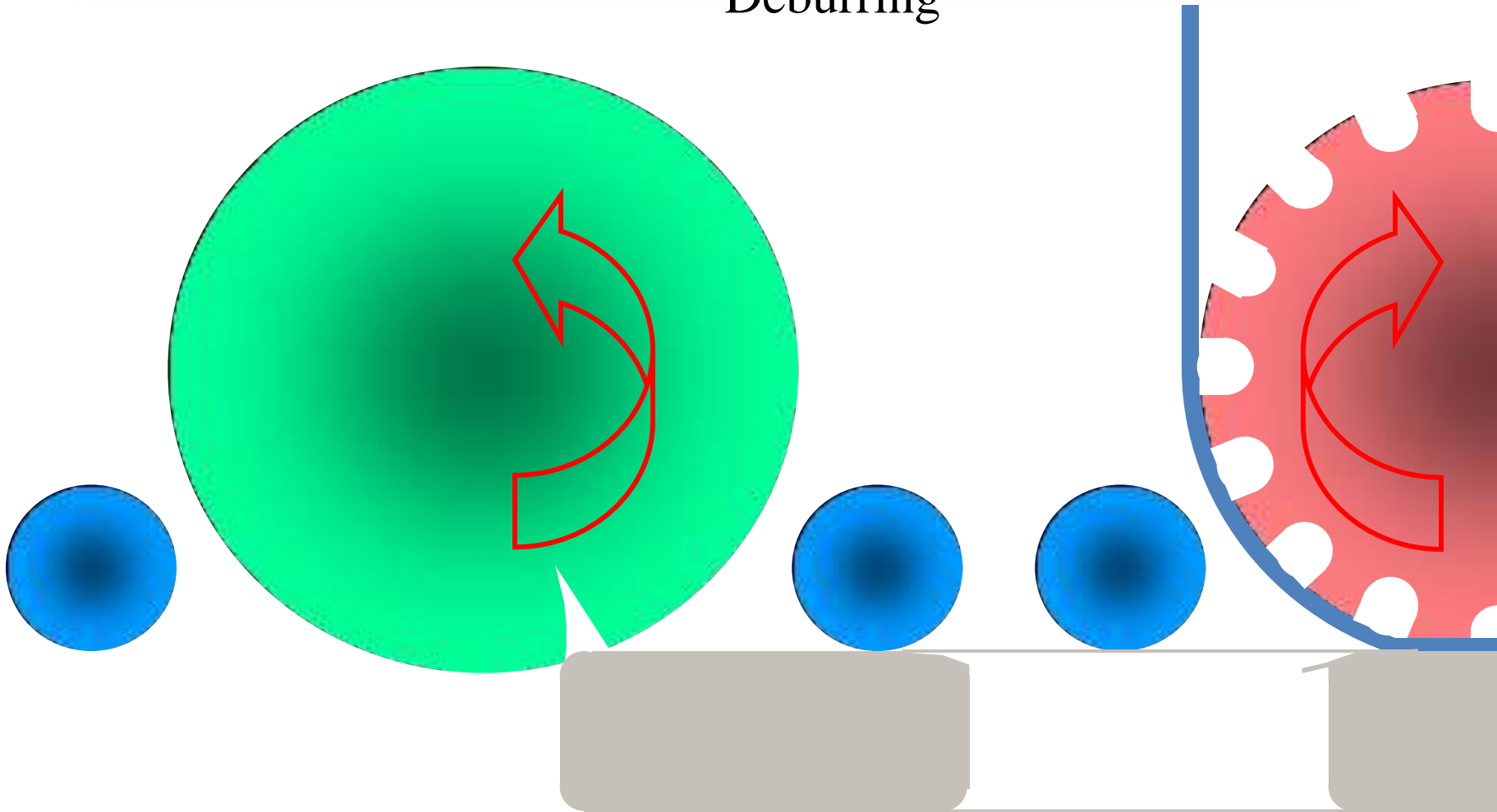


Deburring





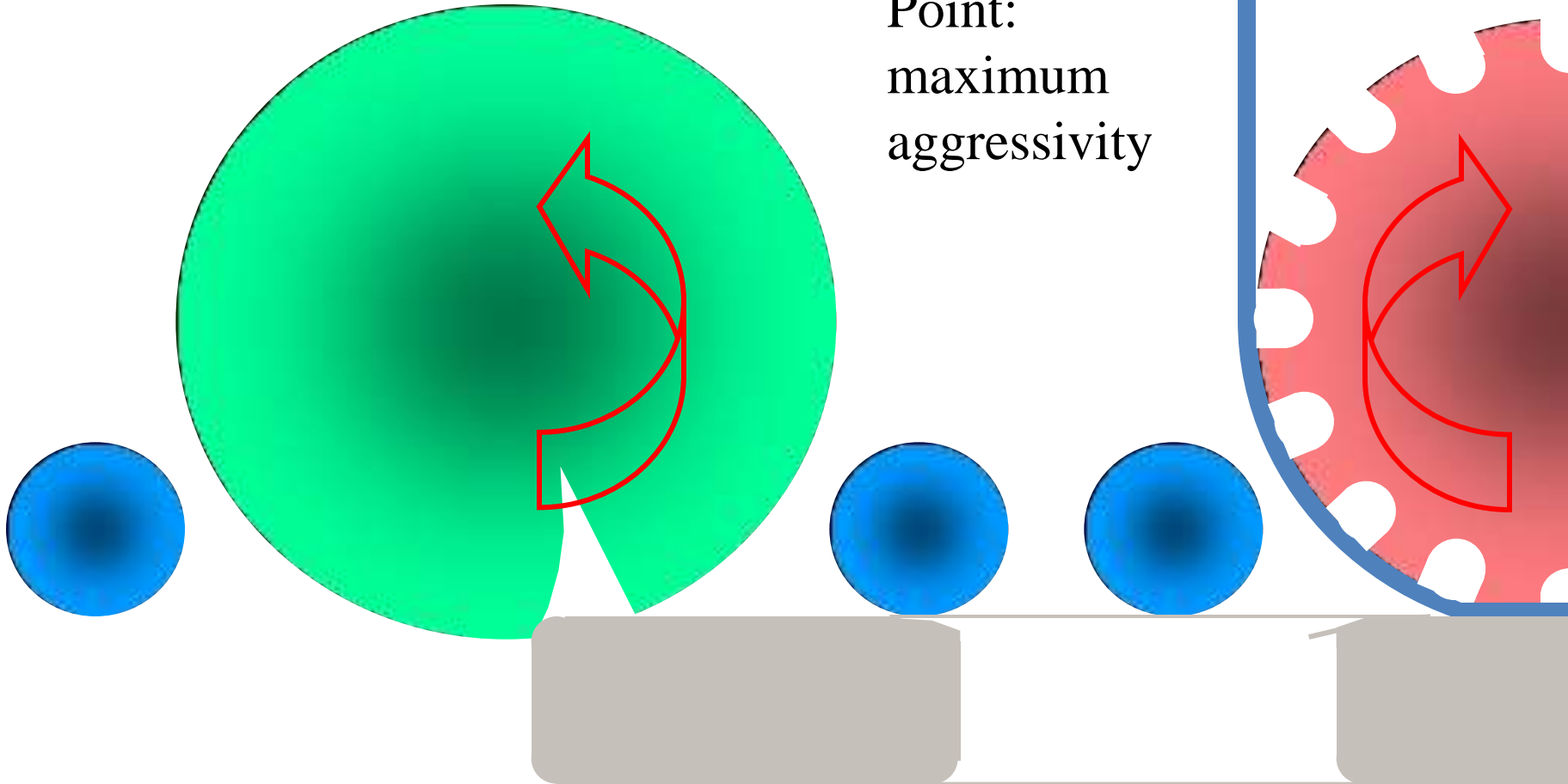
Deburring





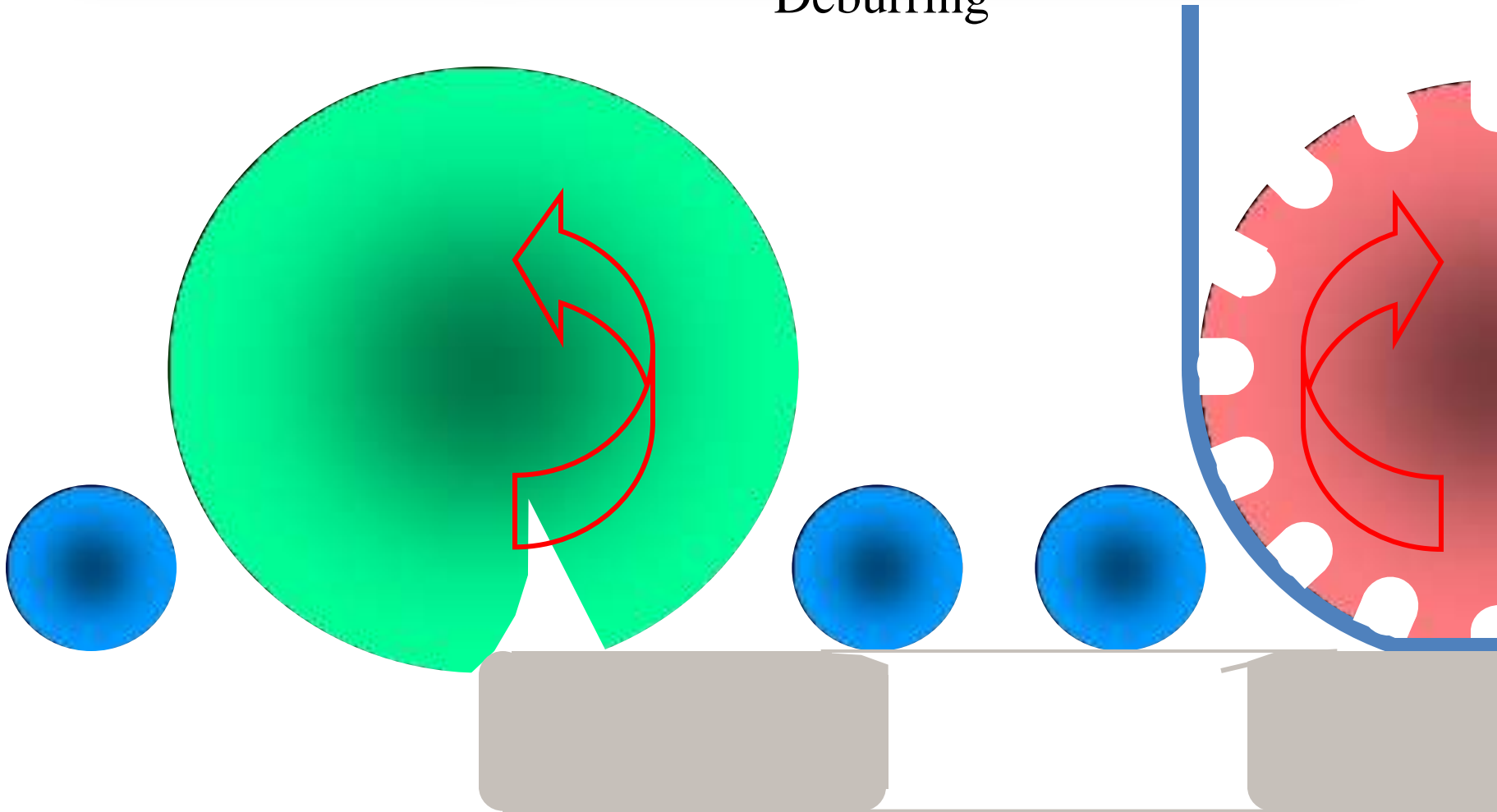
Deburring

Point:
maximum
aggressivity





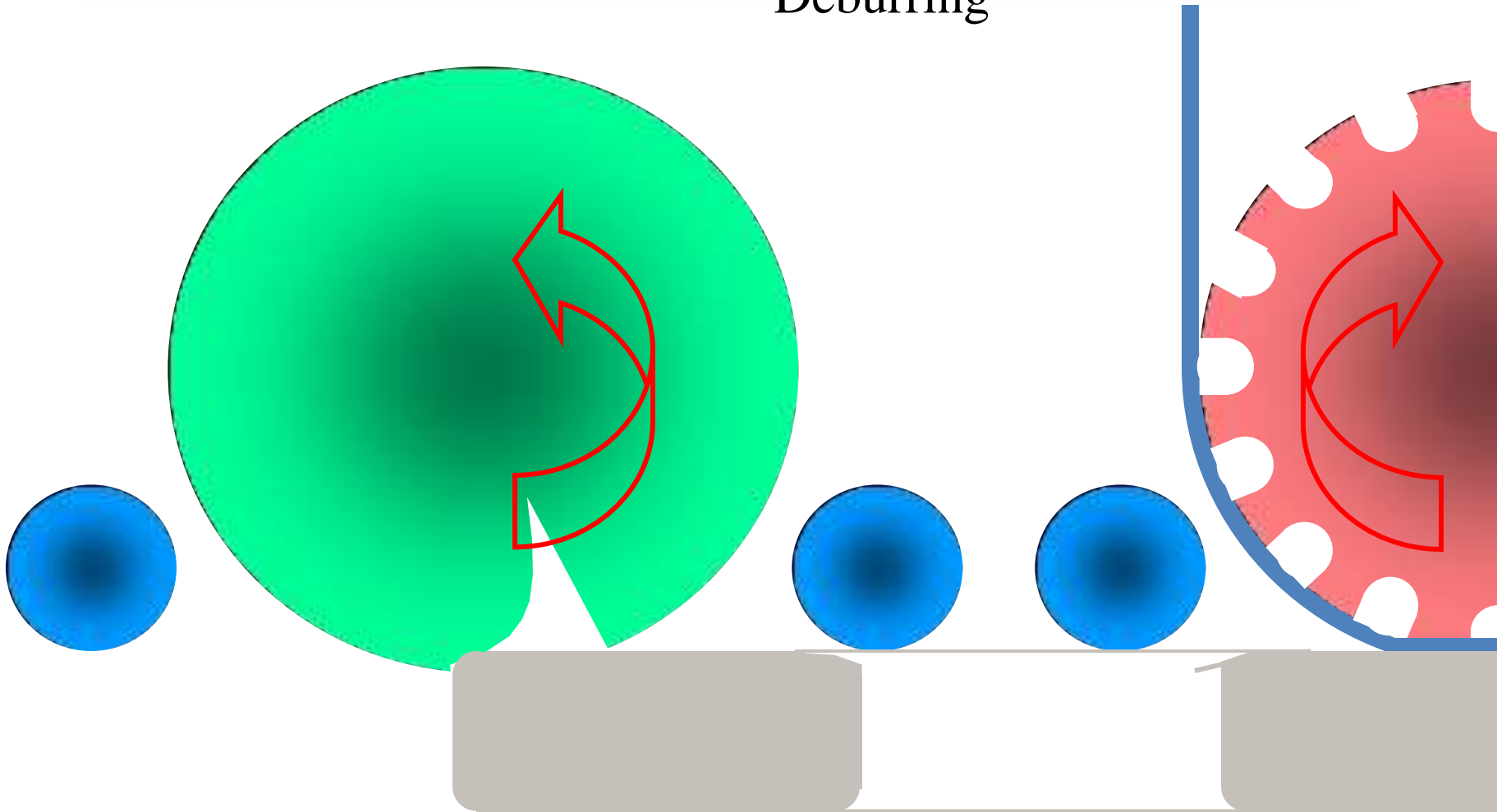
Deburring



GECAM



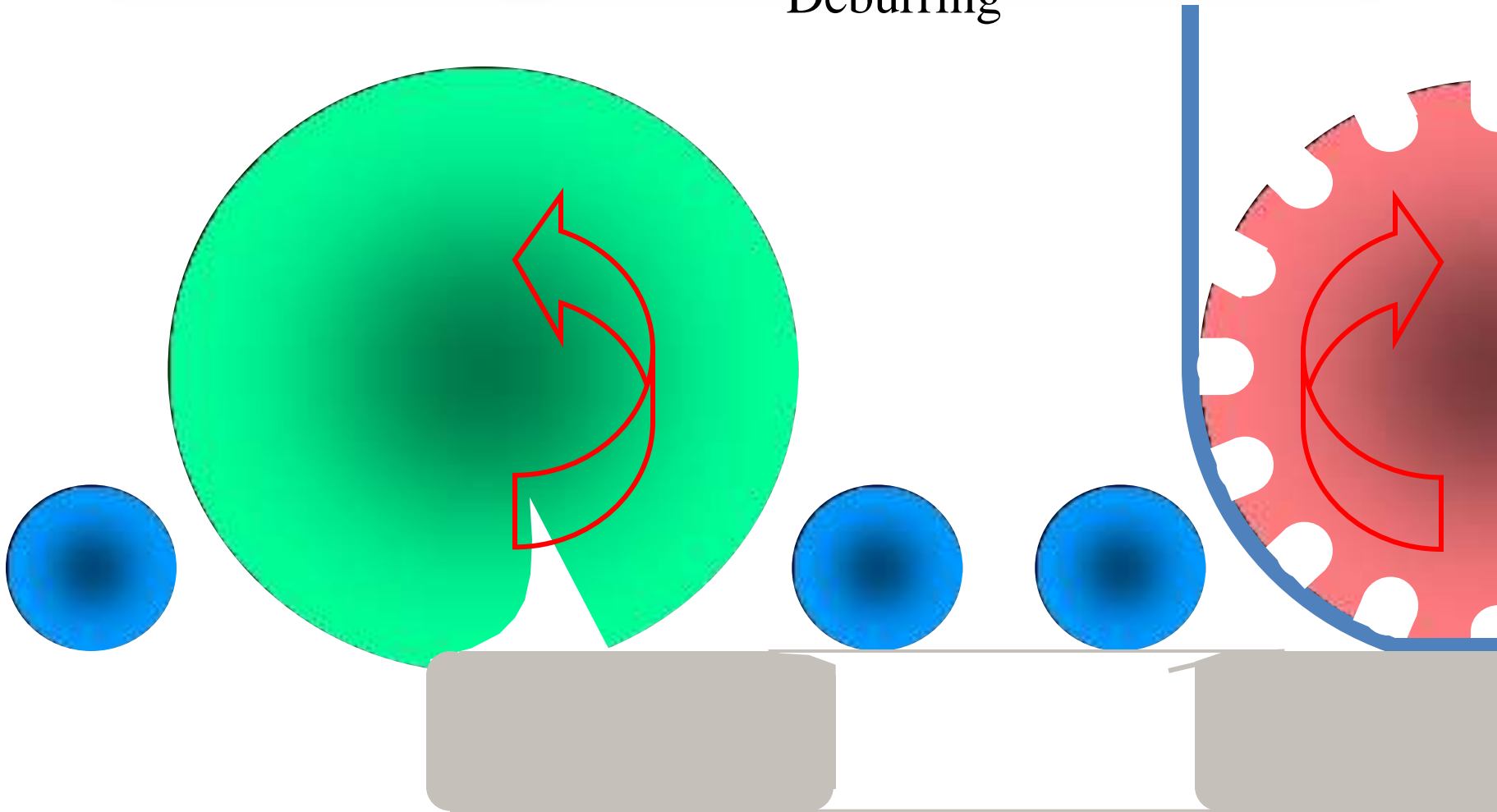
Deburring



GECAM

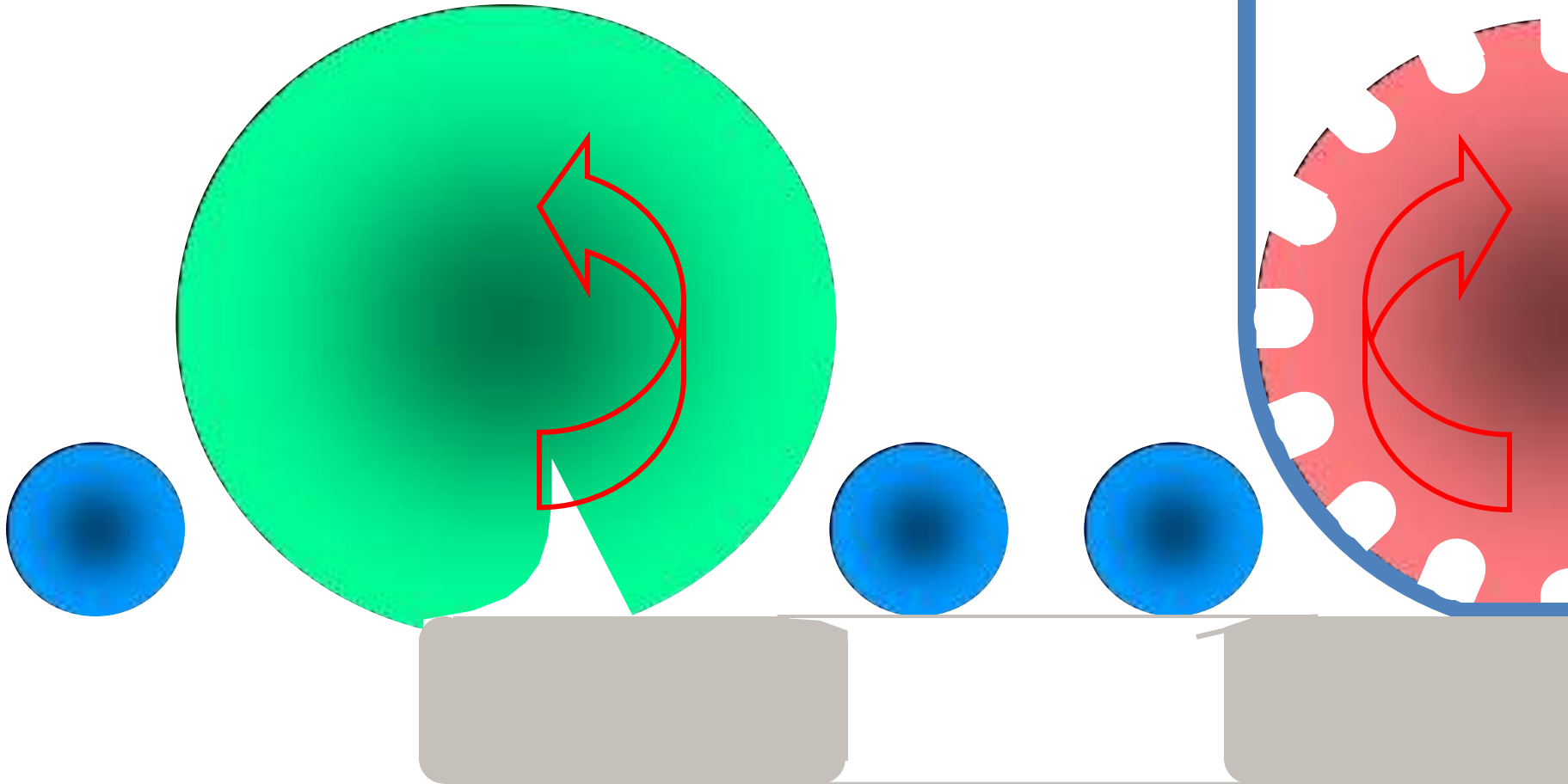


Deburring





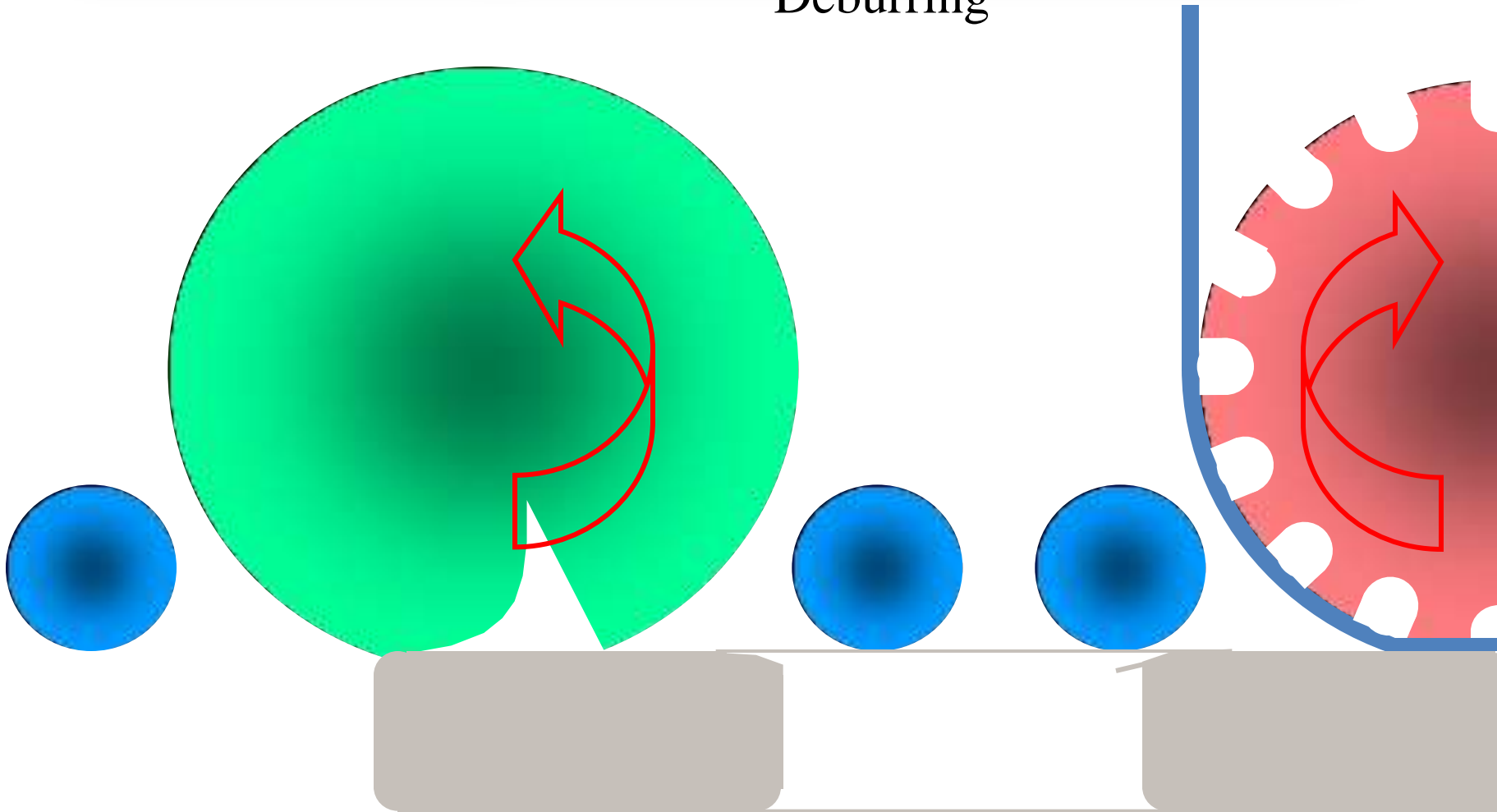
Debrring



GECAM



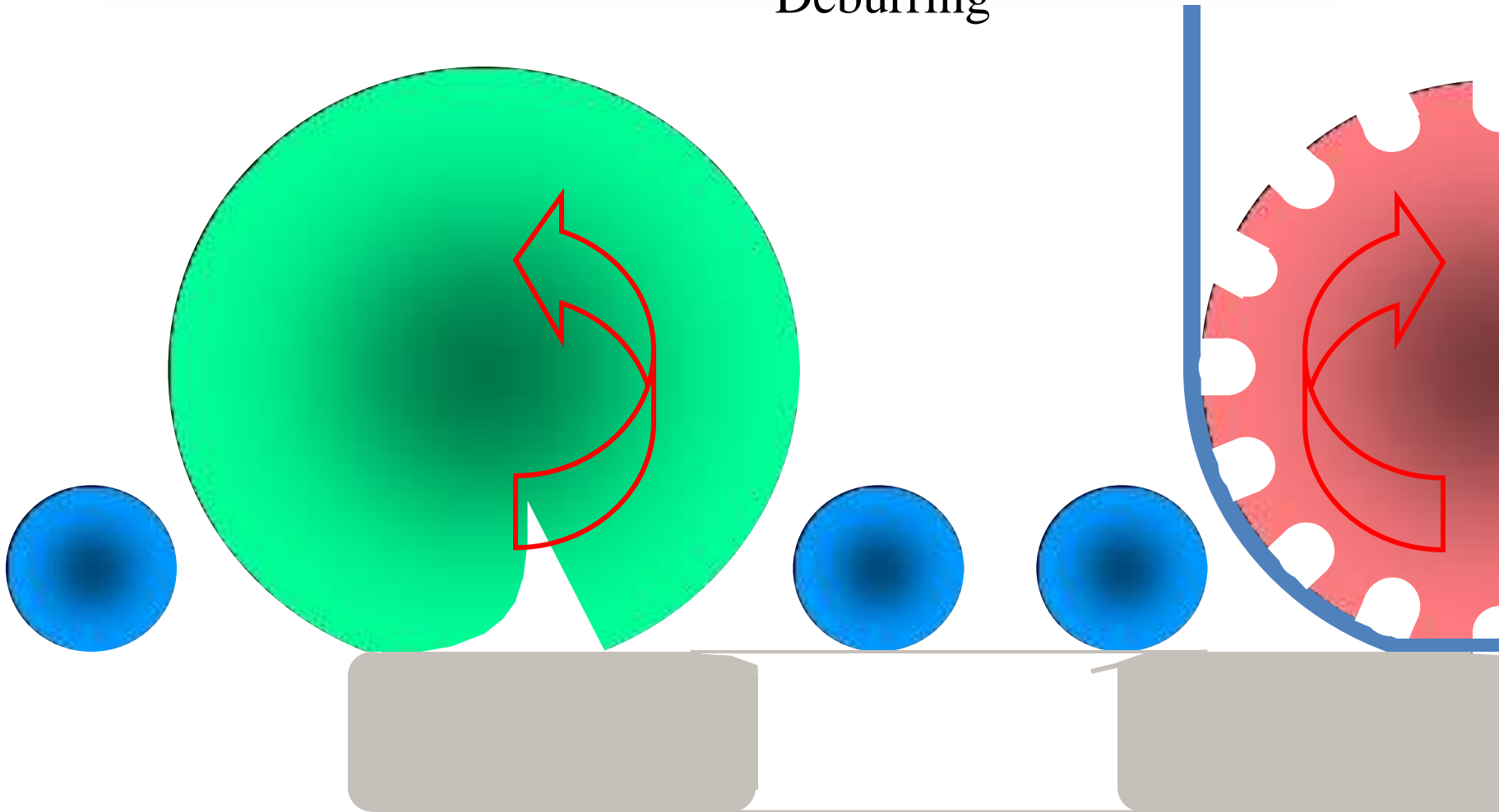
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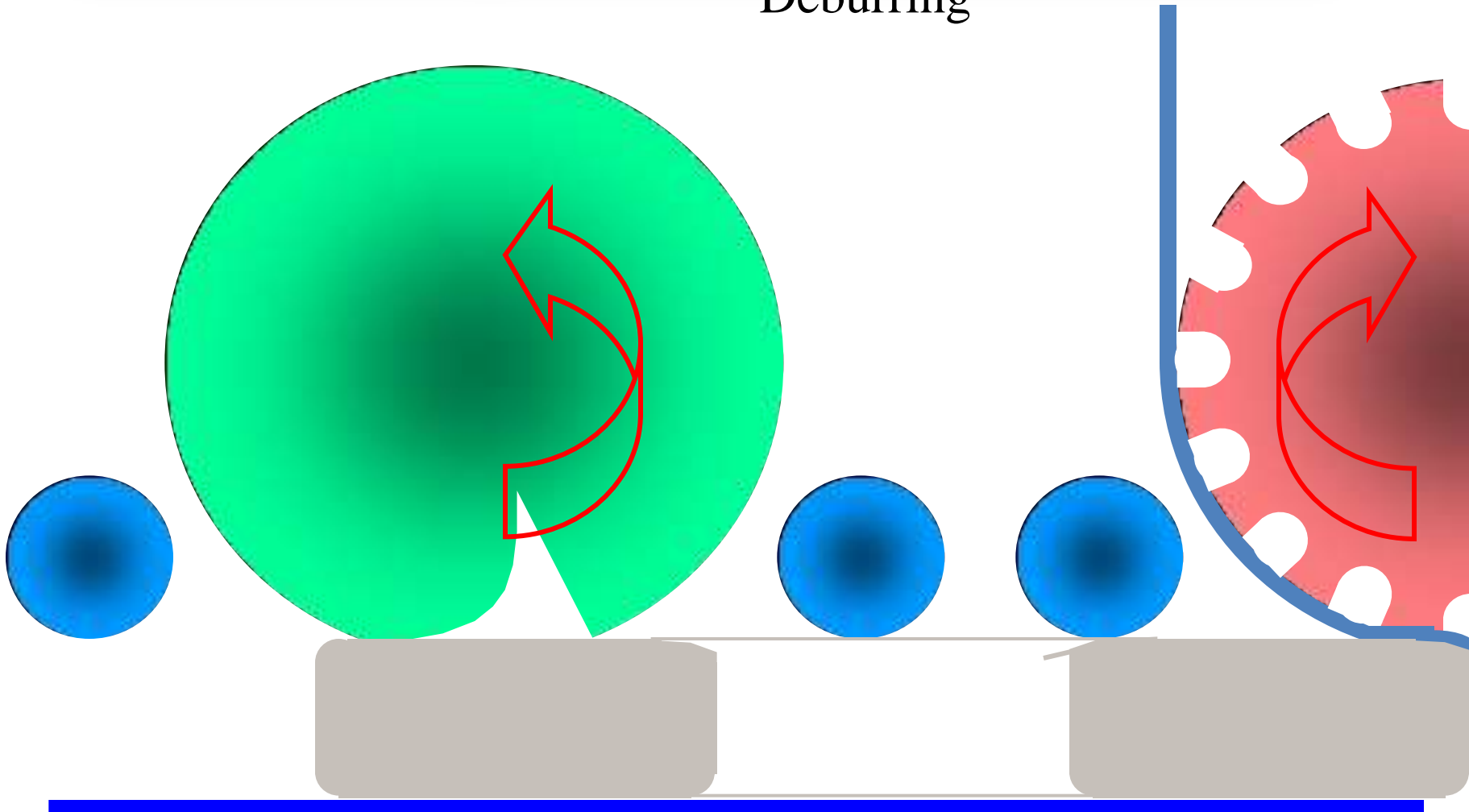
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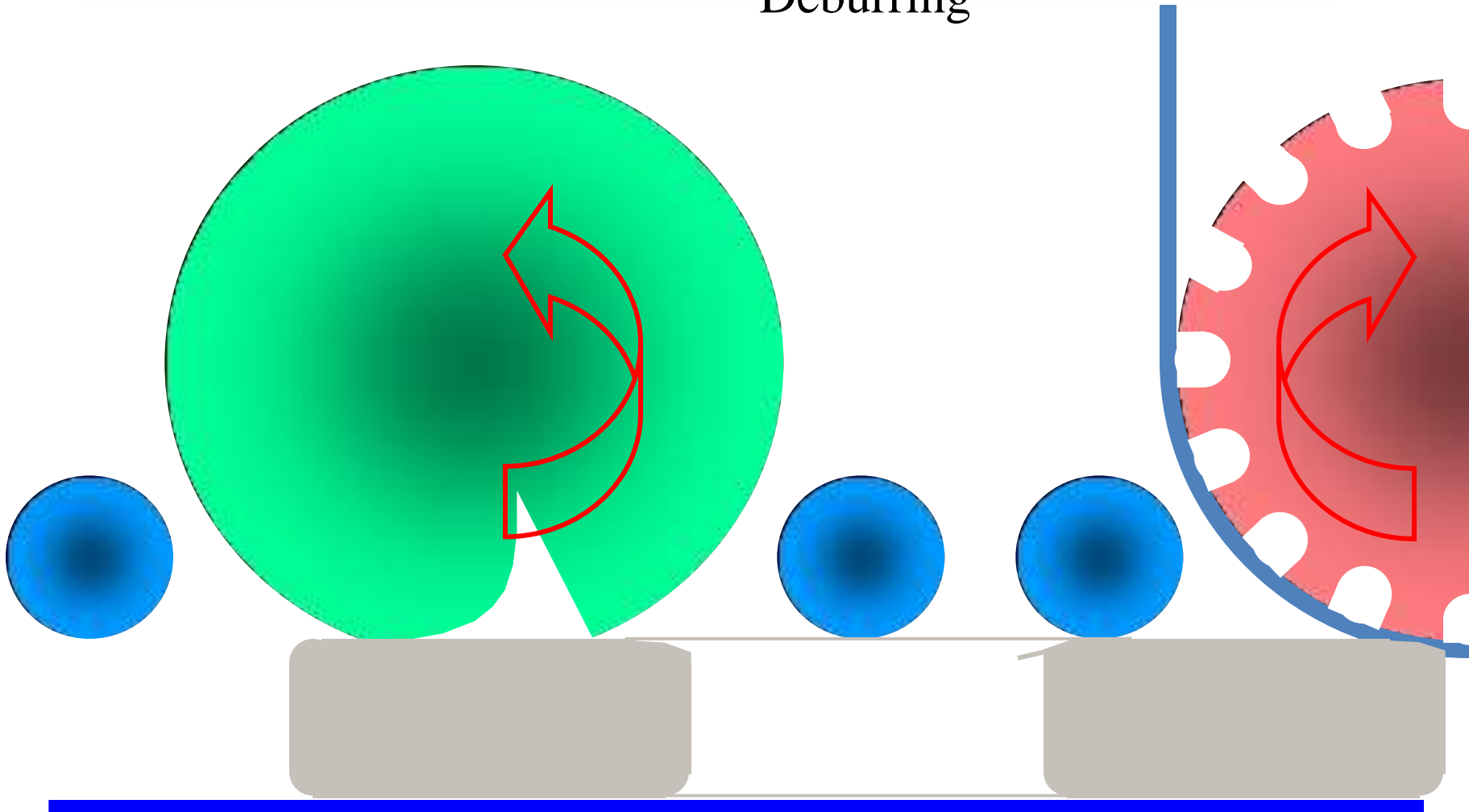
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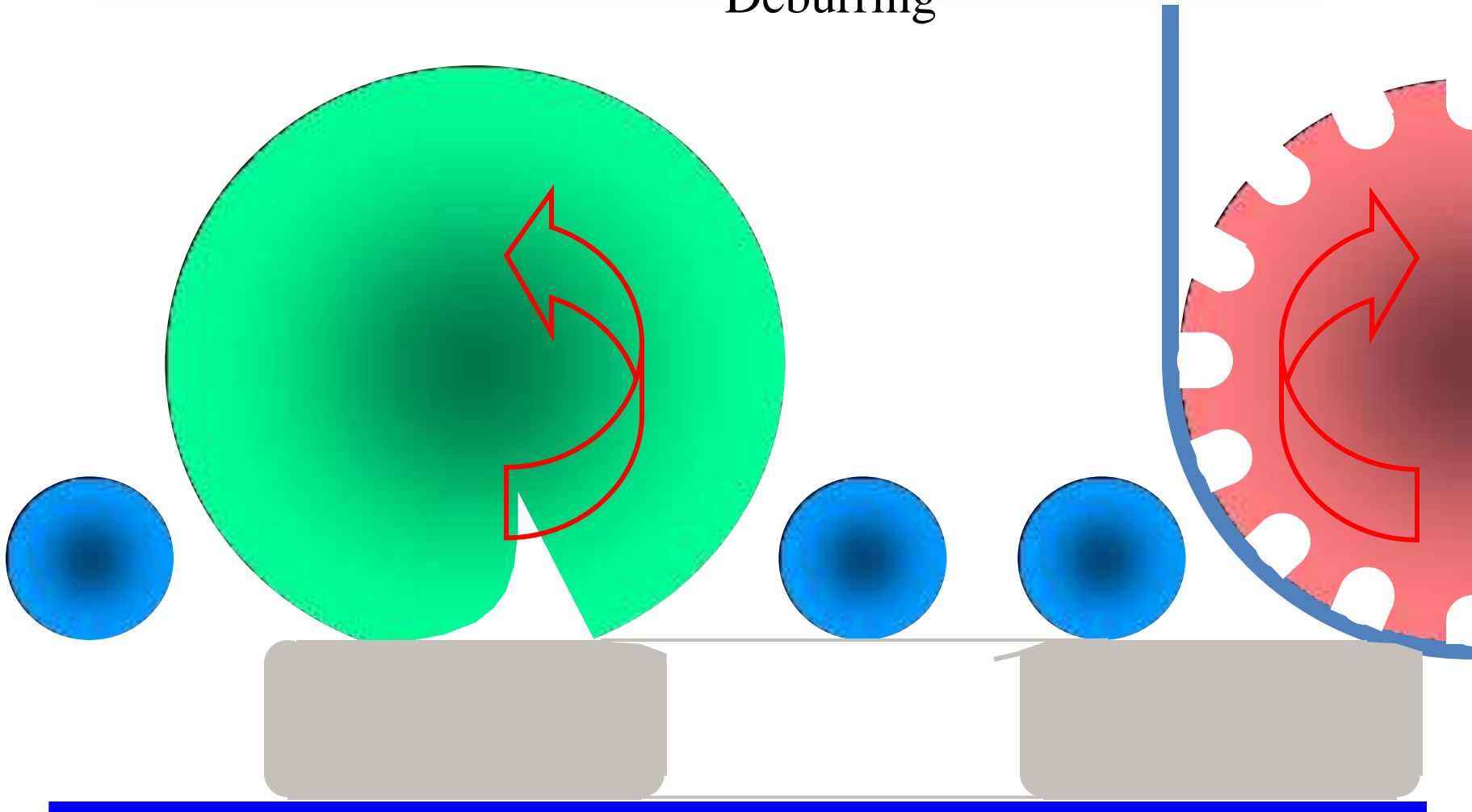
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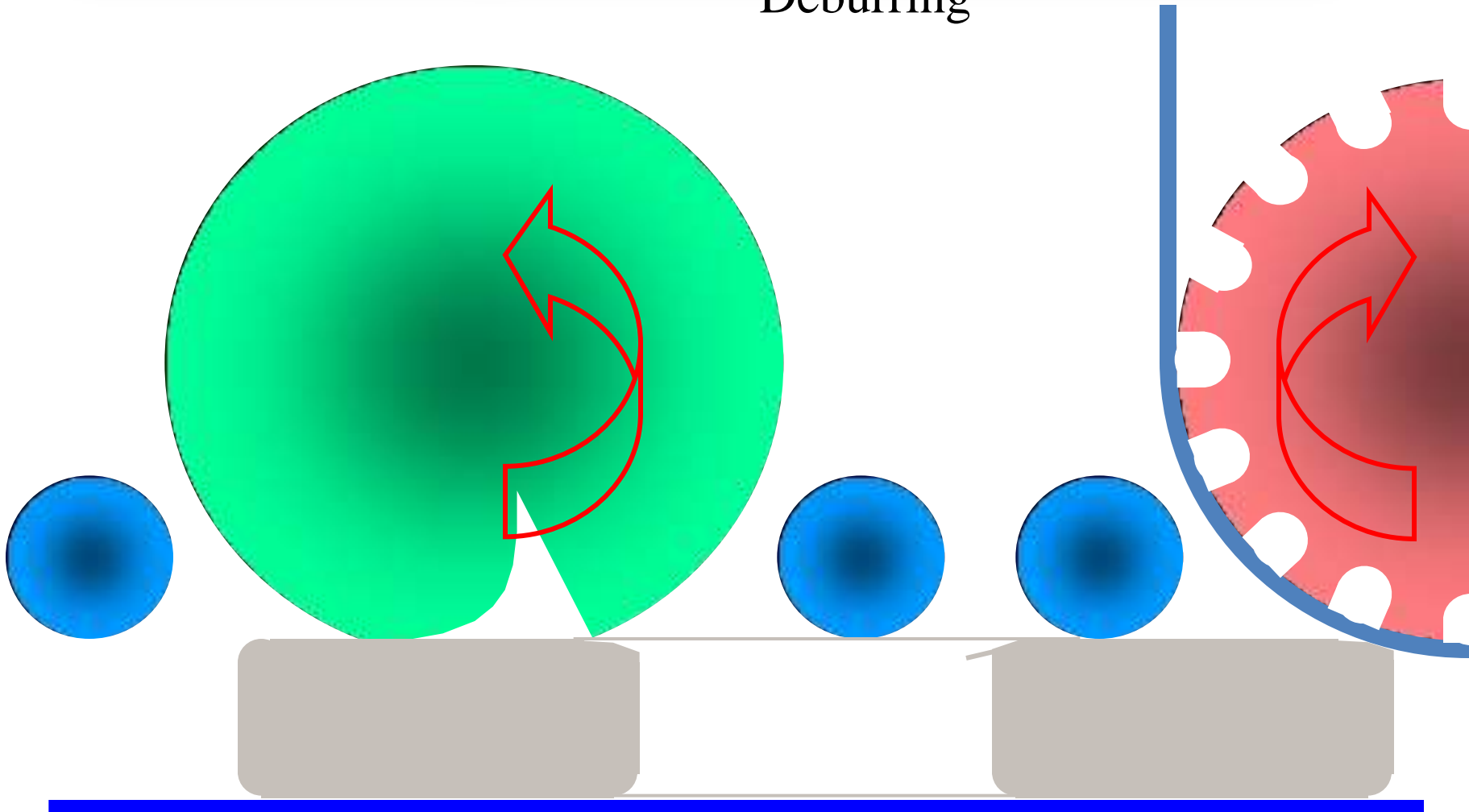
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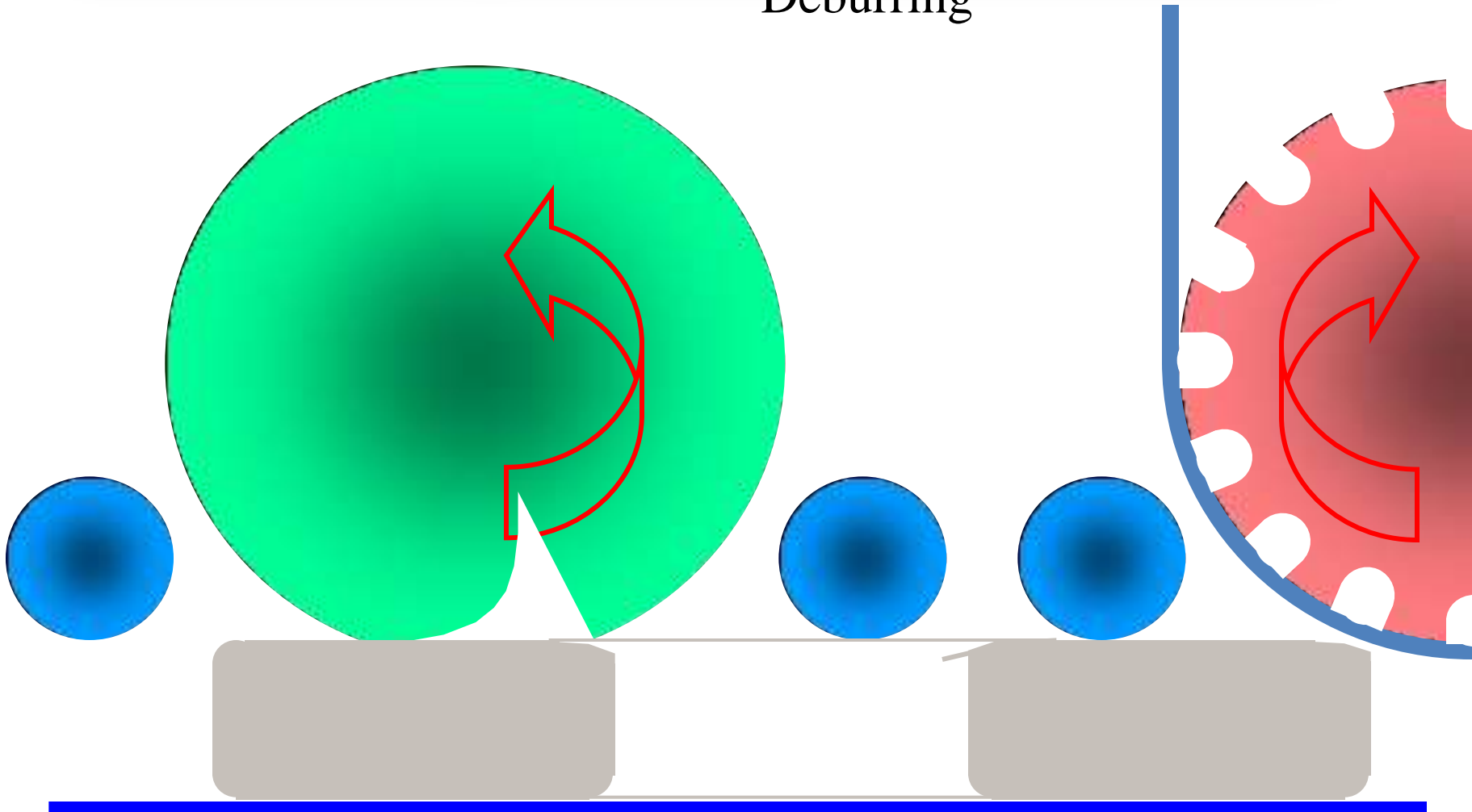


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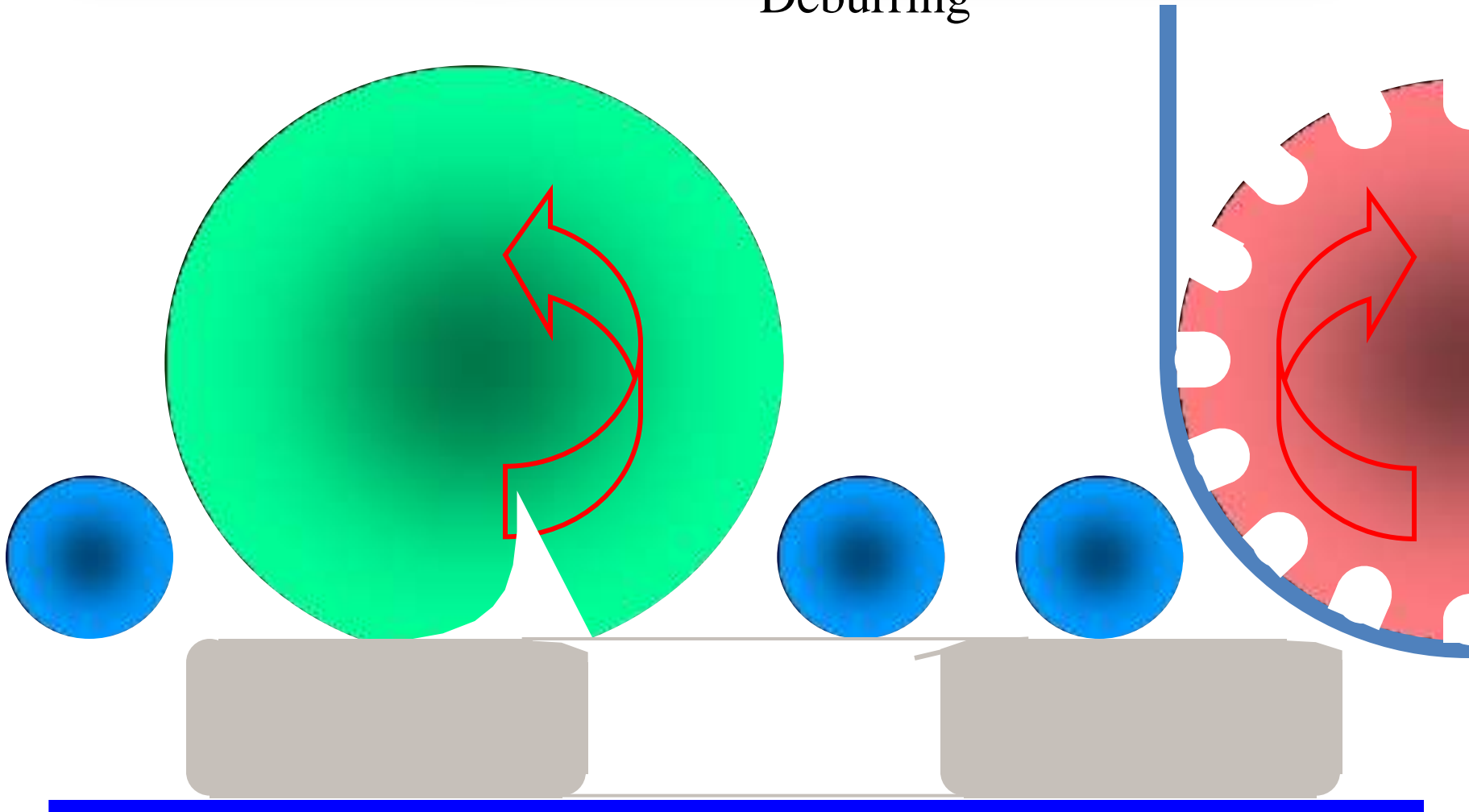
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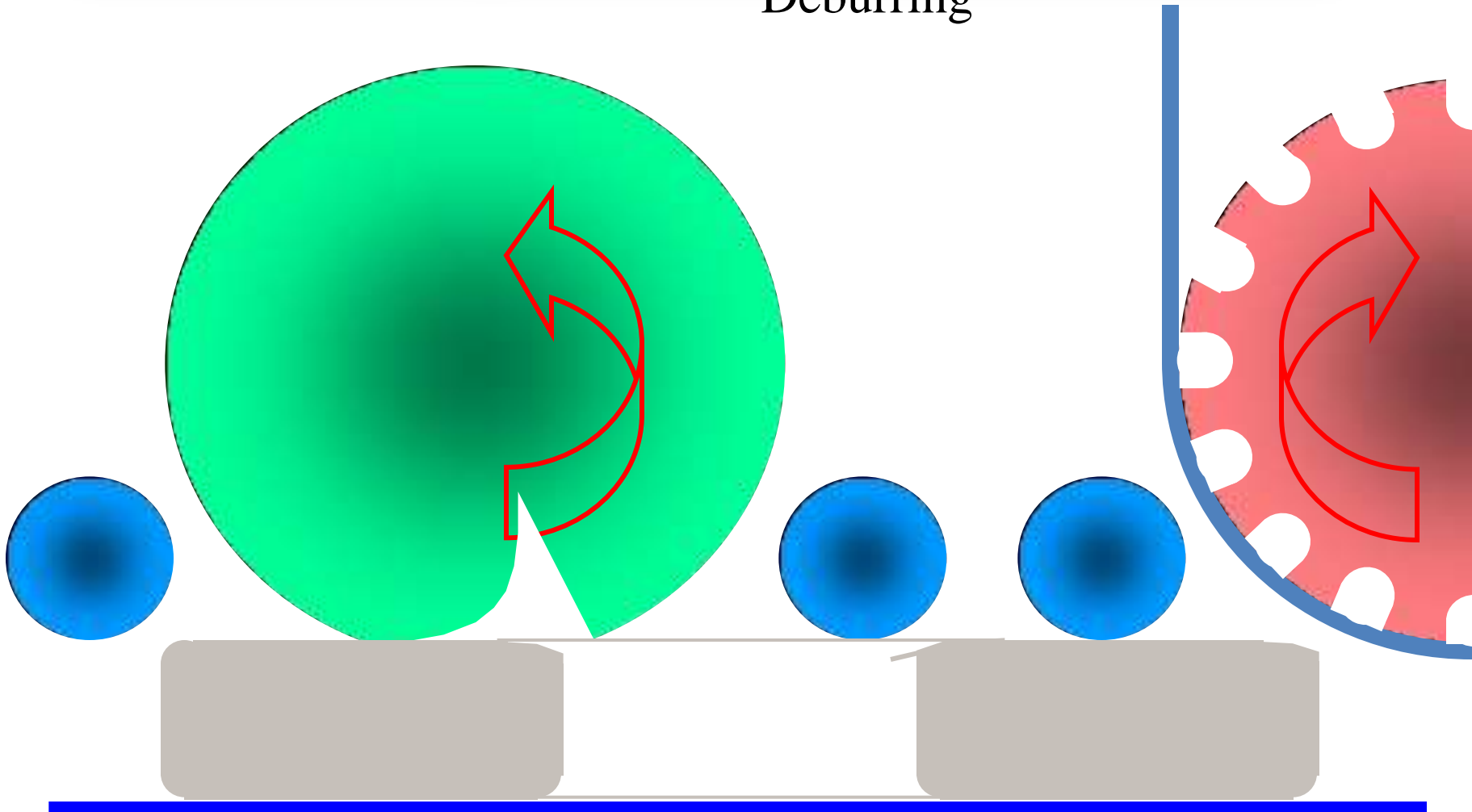
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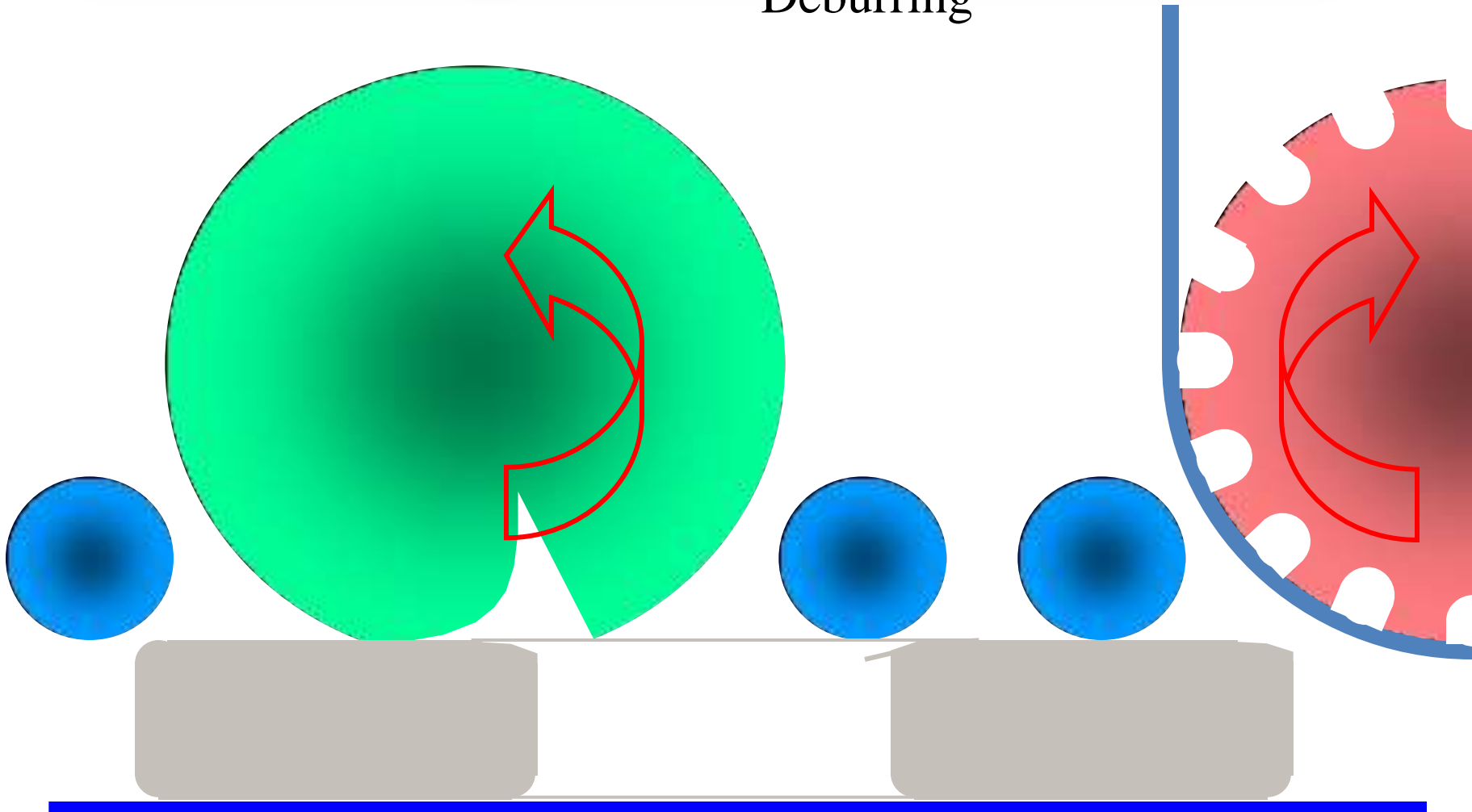
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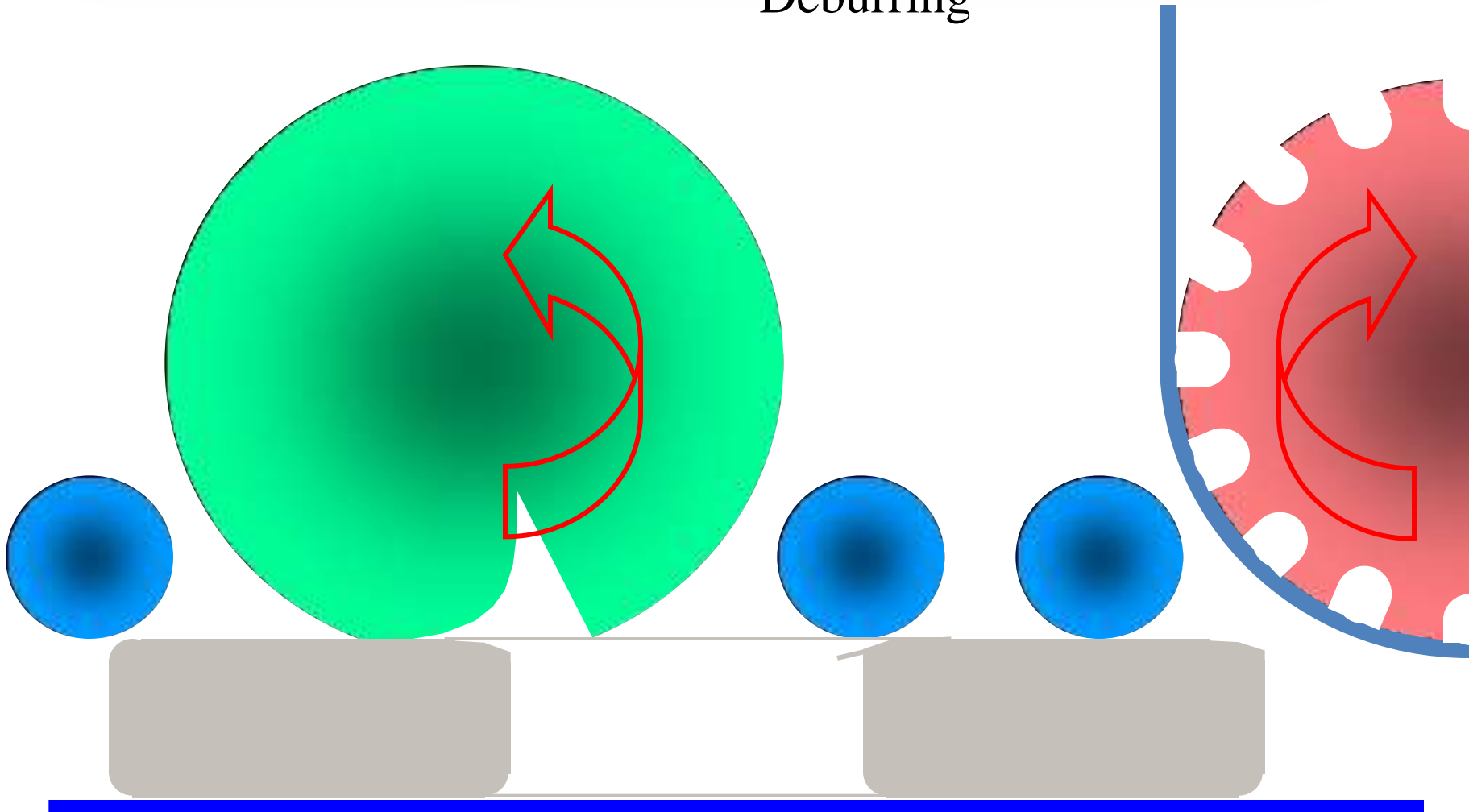
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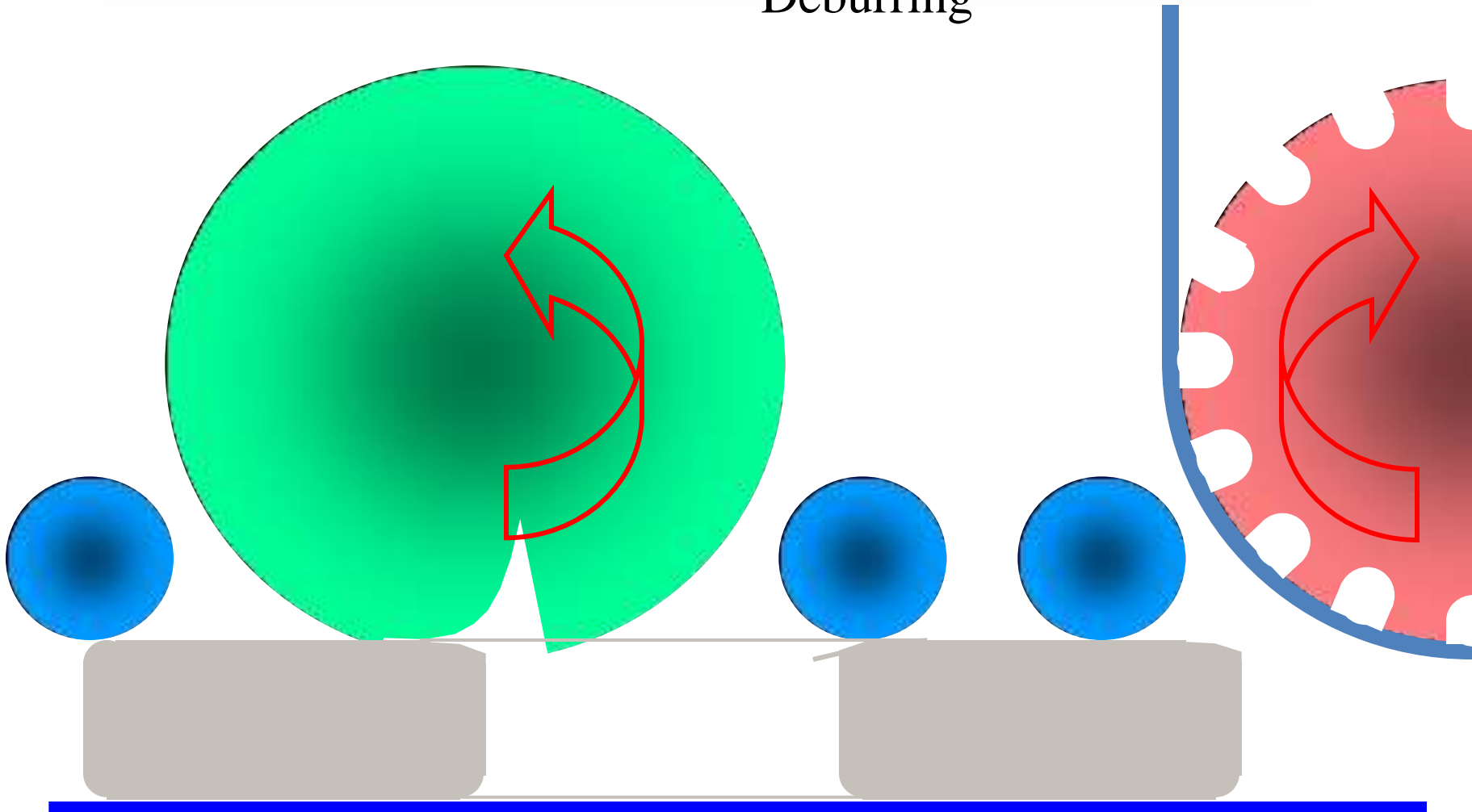
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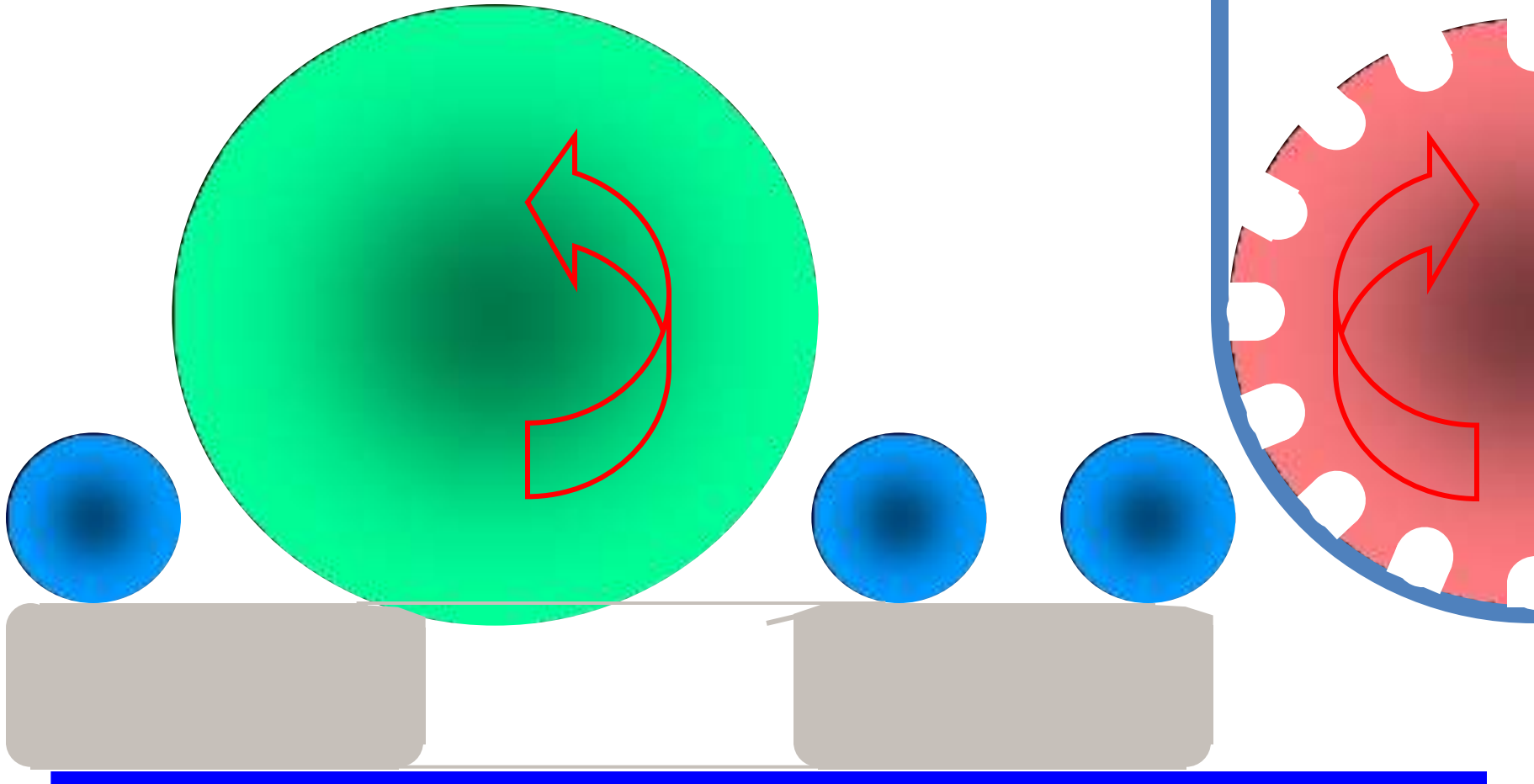
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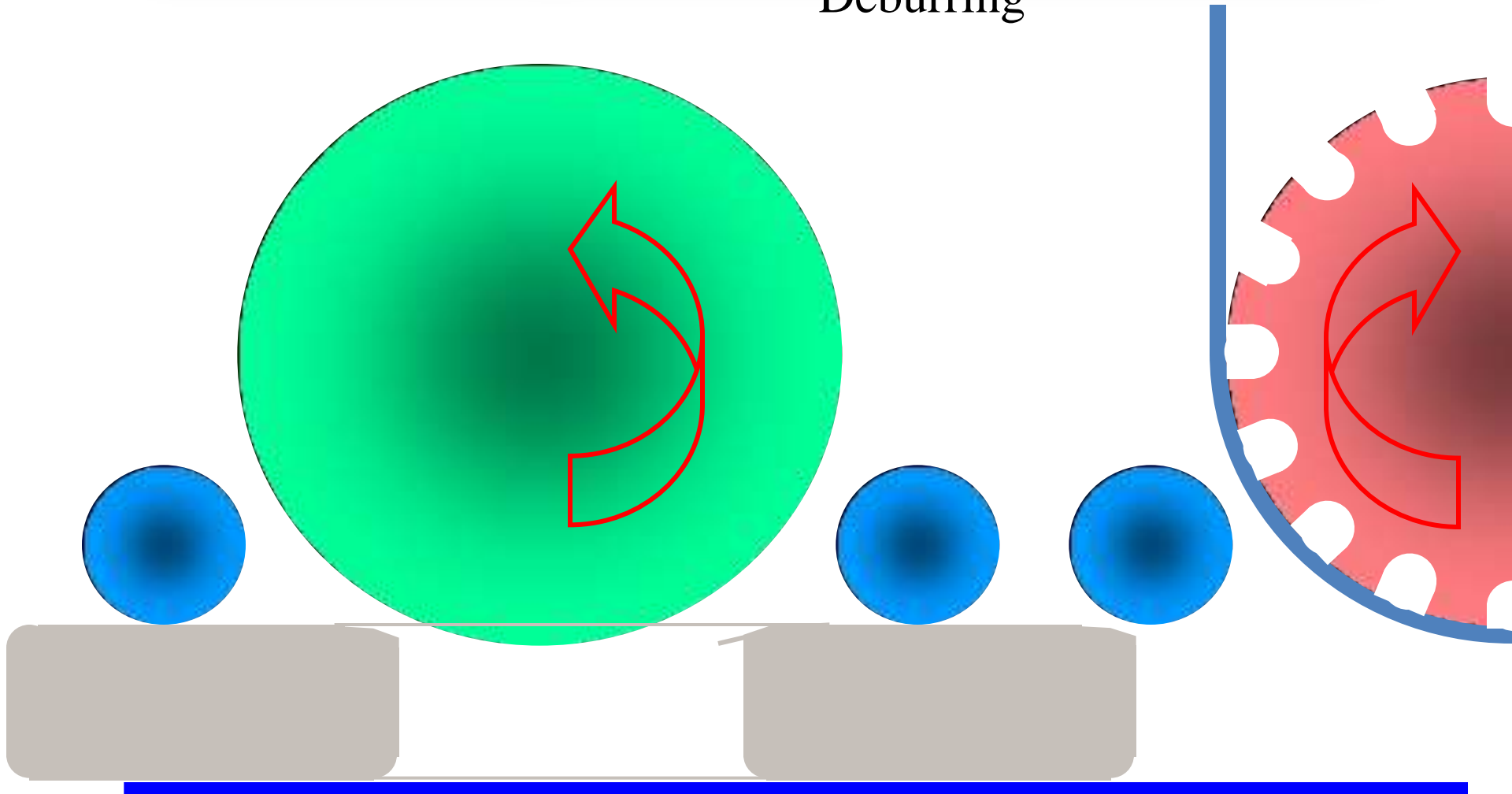
Deburring



GECAM



Deburring

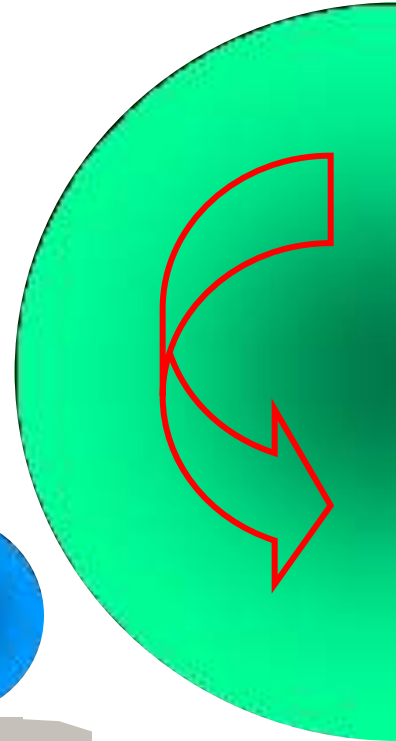
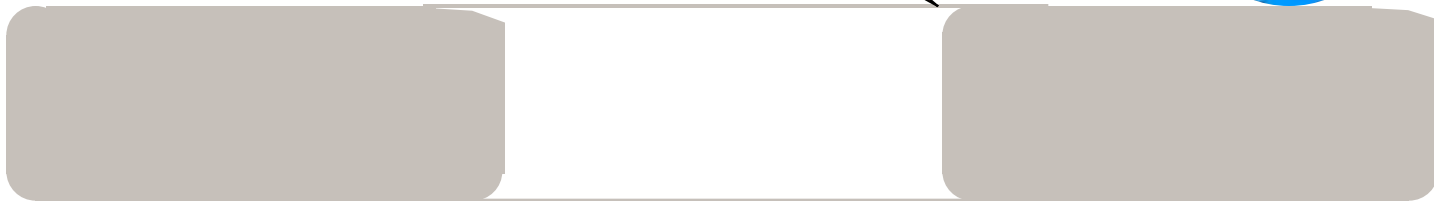
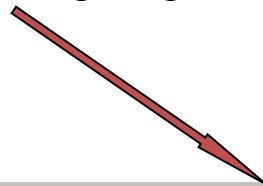




Deburring

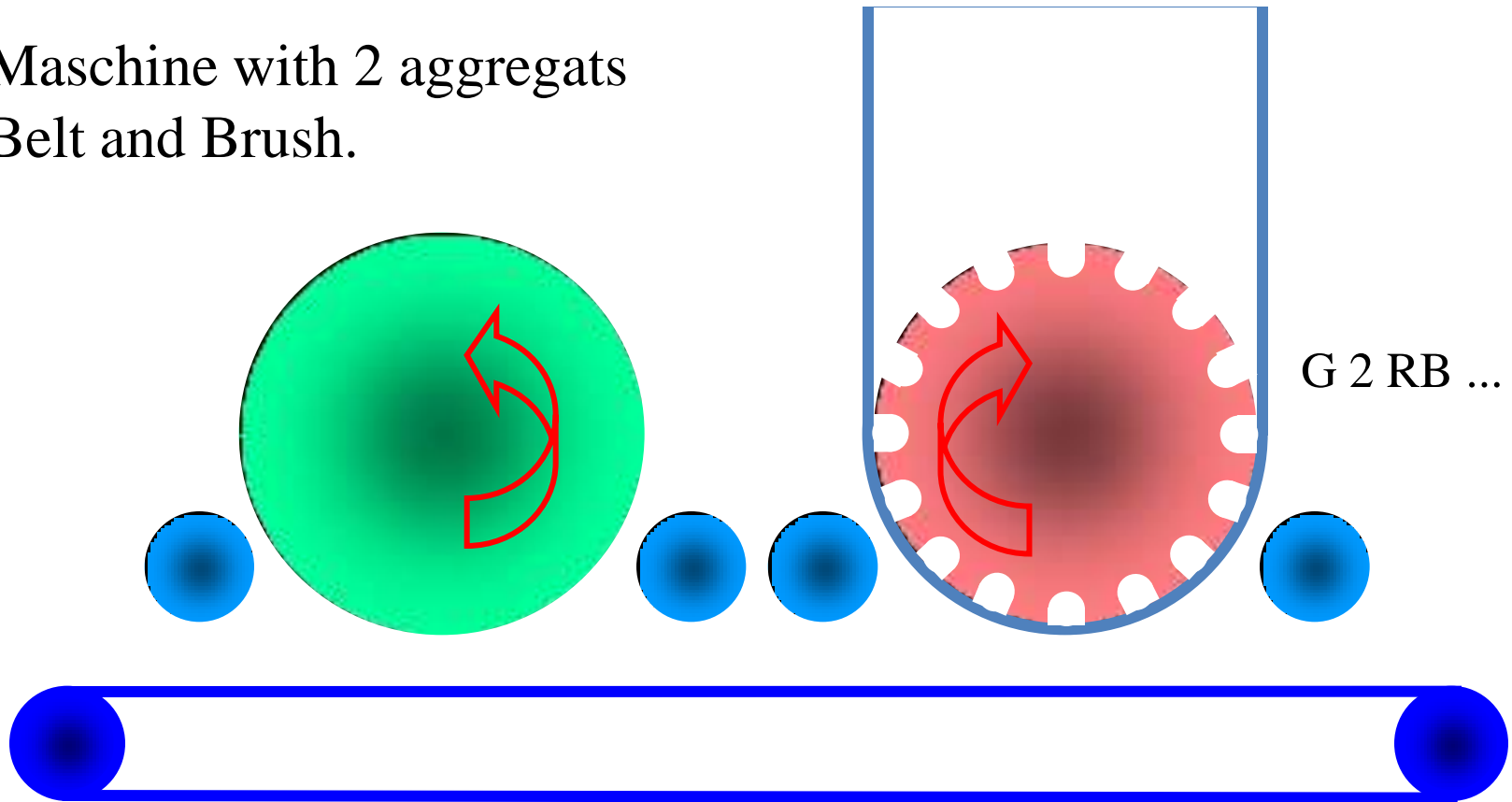
Piece finished by barrel brush

Brush for grinding angle





Maschine with 2 aggregats
Belt and Brush.

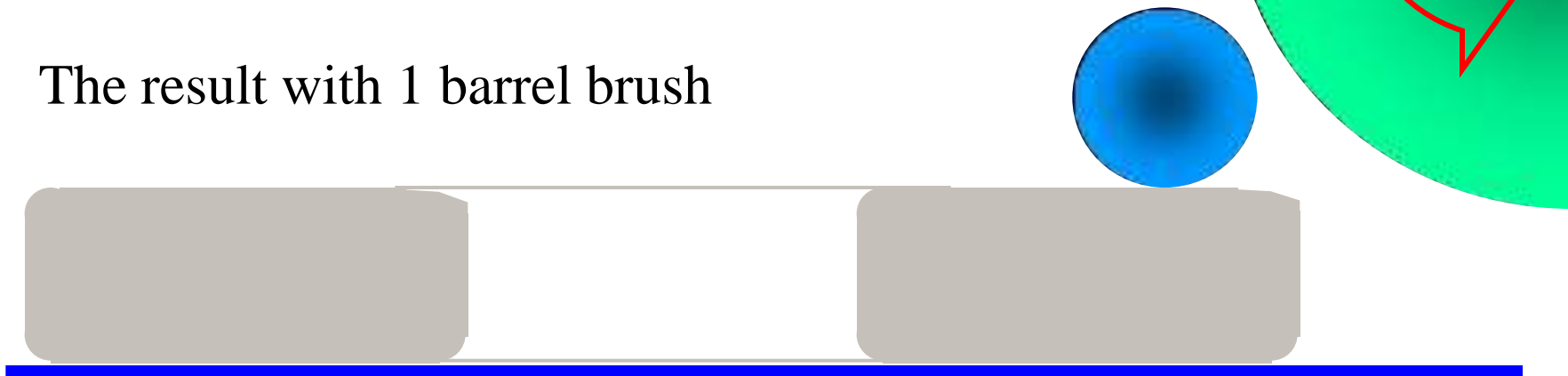




Deburring

The quality of the finishing of the all edge cannot be done with 1 brush only,
It must be with 2 units, 1 brush running at clockwise and 1 brush running anticlockwise direction

The result with 1 barrel brush

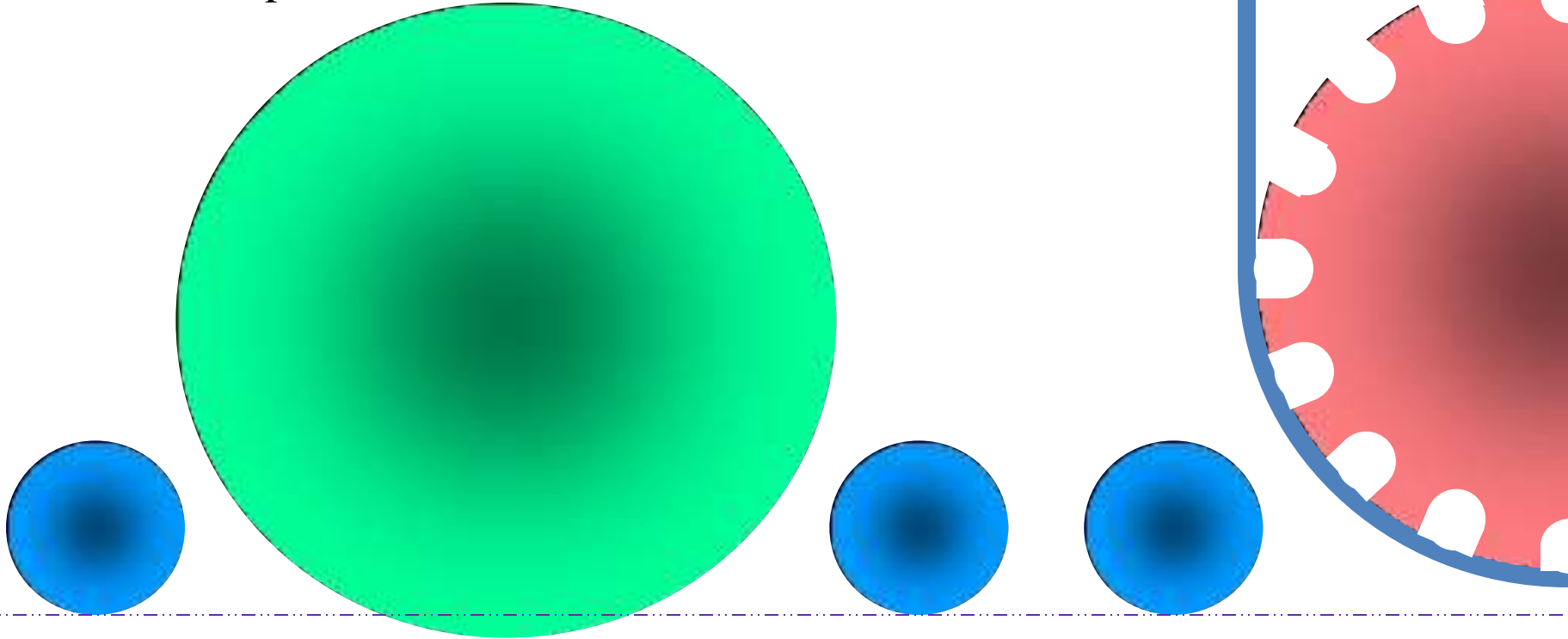


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The brush can be adjusted, ca.
0,5mm deep than the reference 0 line

Deburring

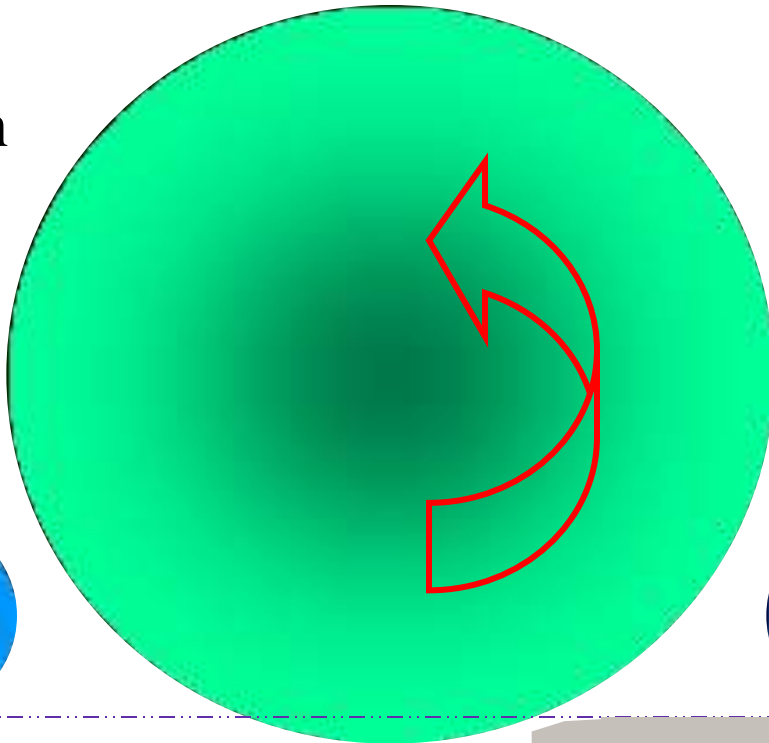


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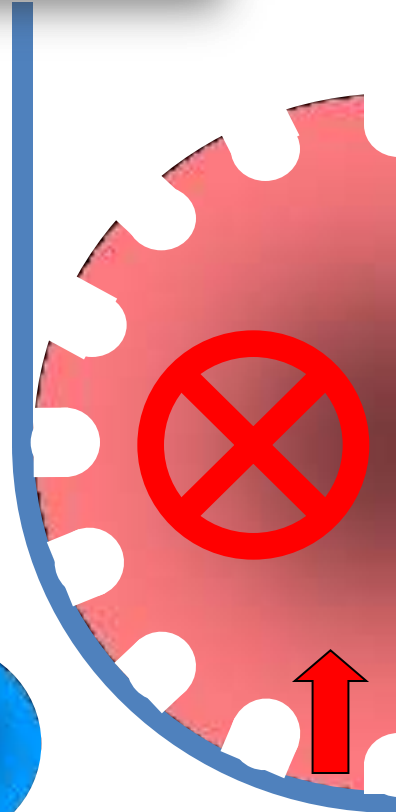
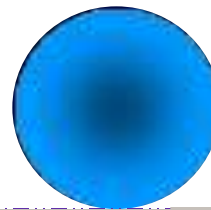


Deburring

Brush
Position



Contact
roller
STOPS
and
up!!!!

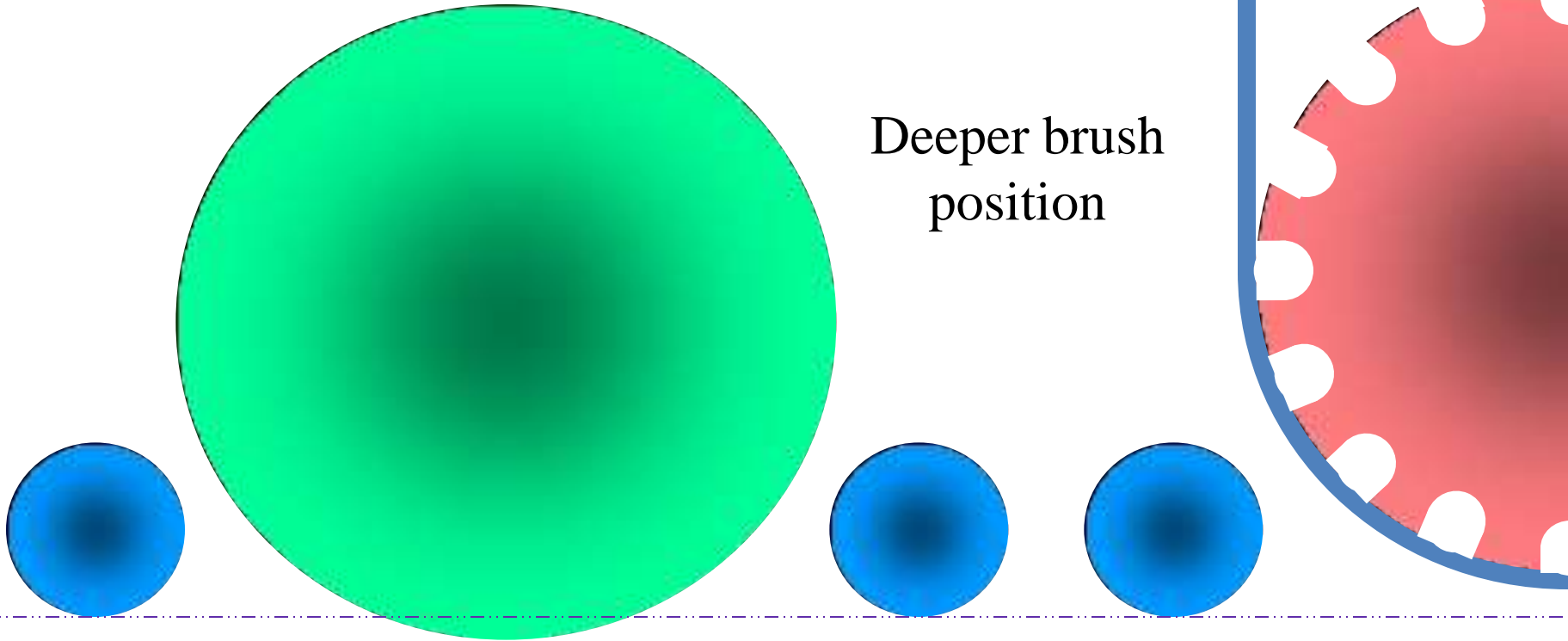


GECAM



Deburring

Deeper brush
position



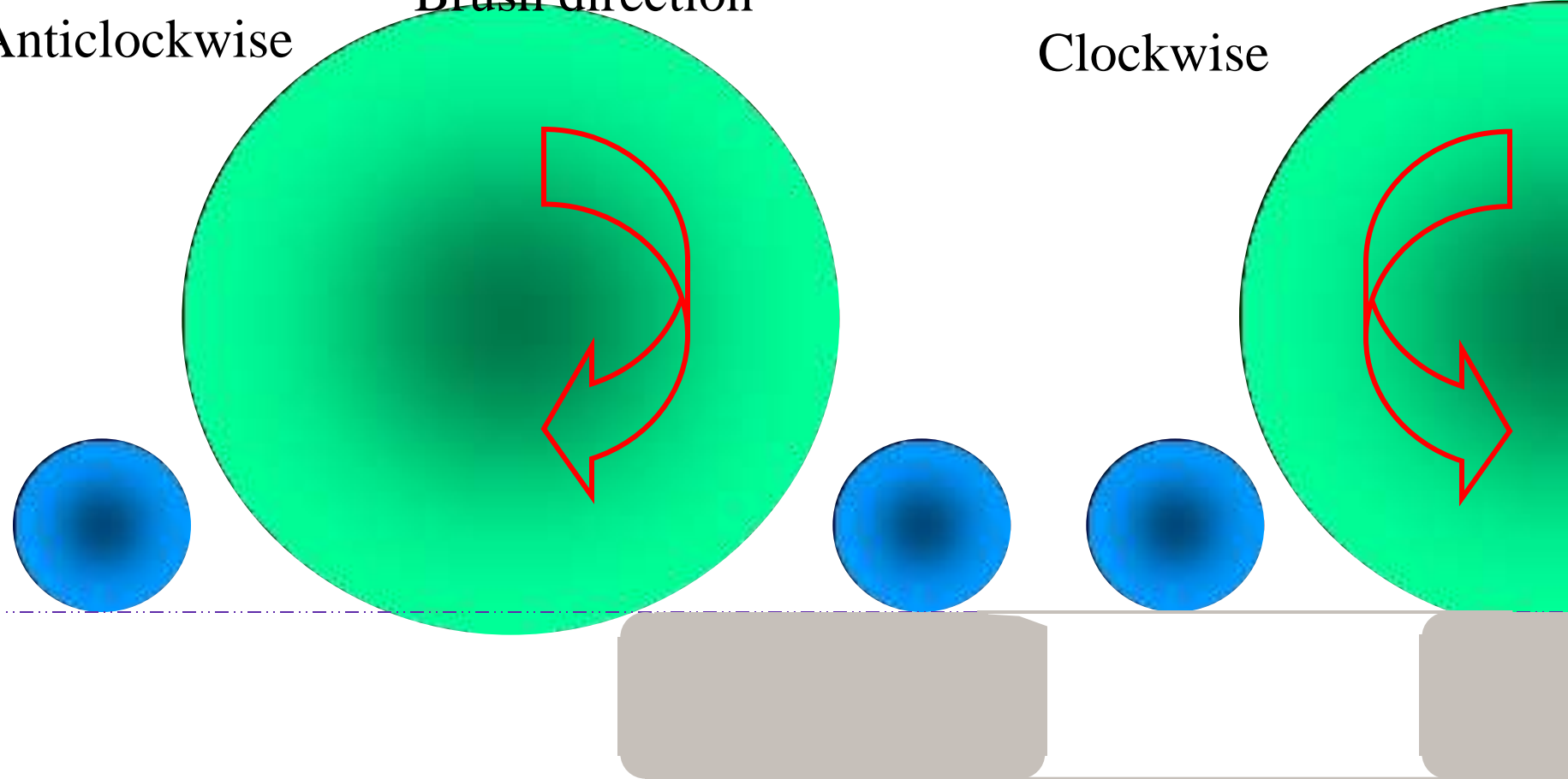


Deburring

Anticlockwise

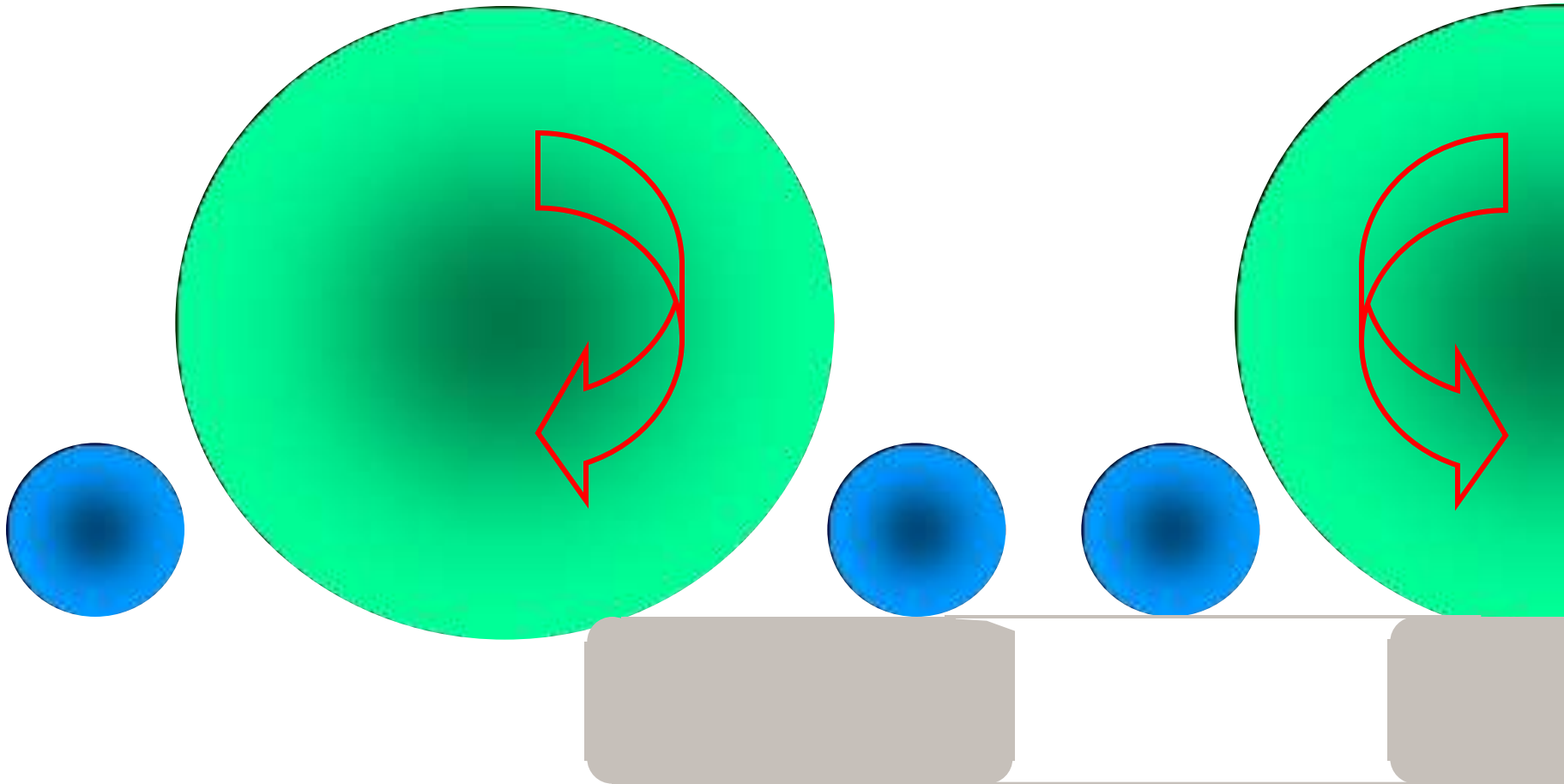
Brush direction

Clockwise



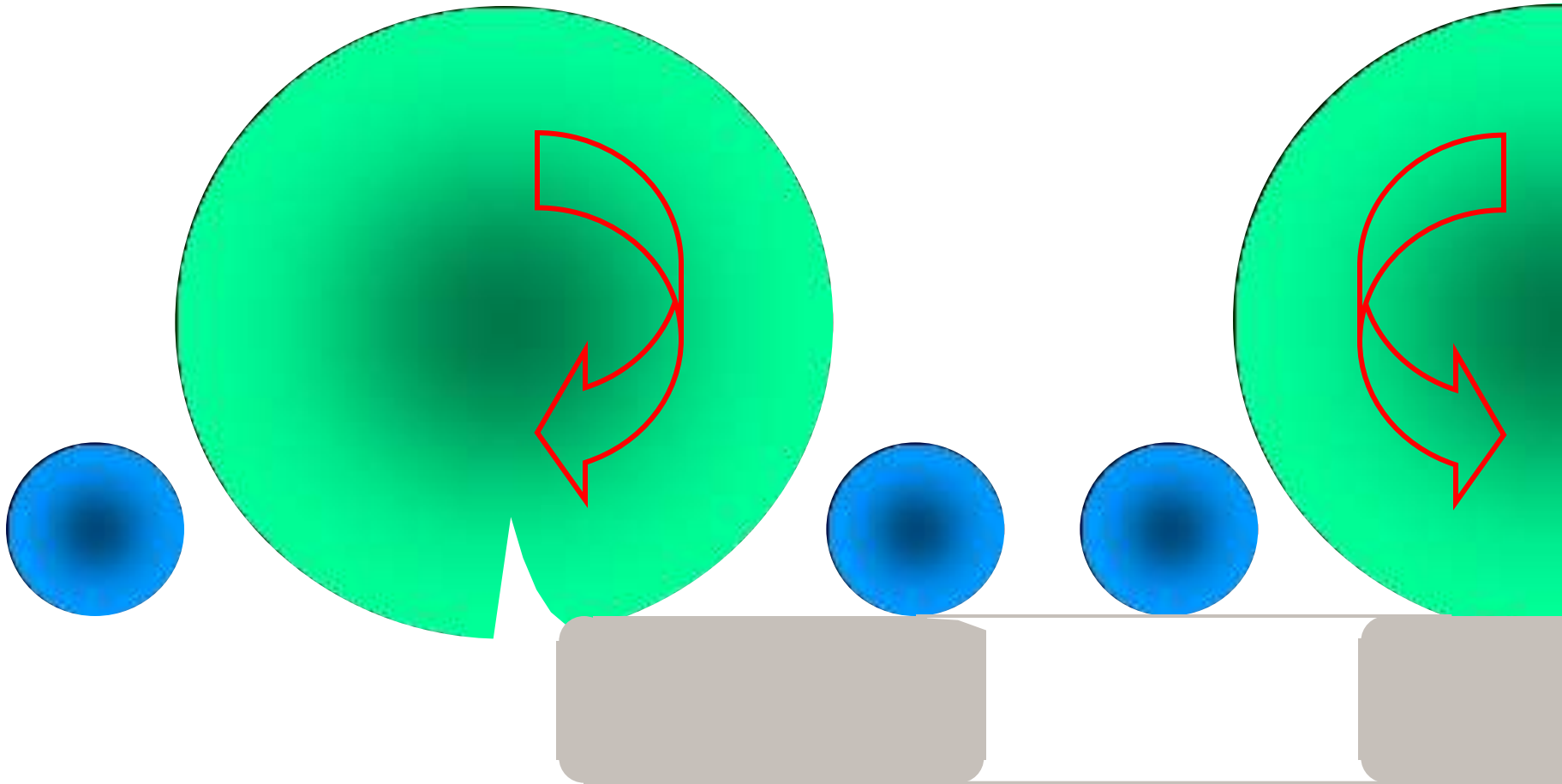


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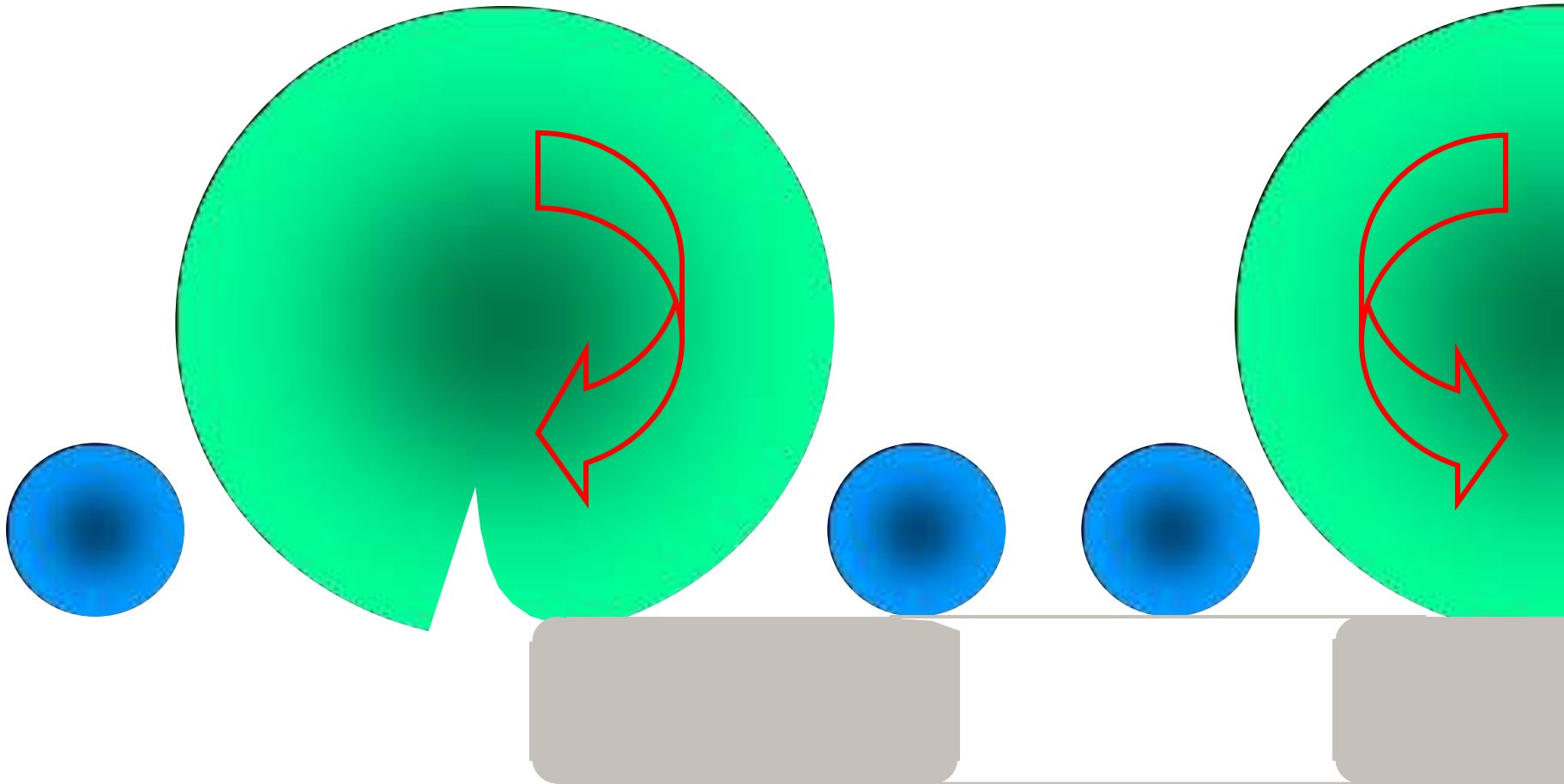


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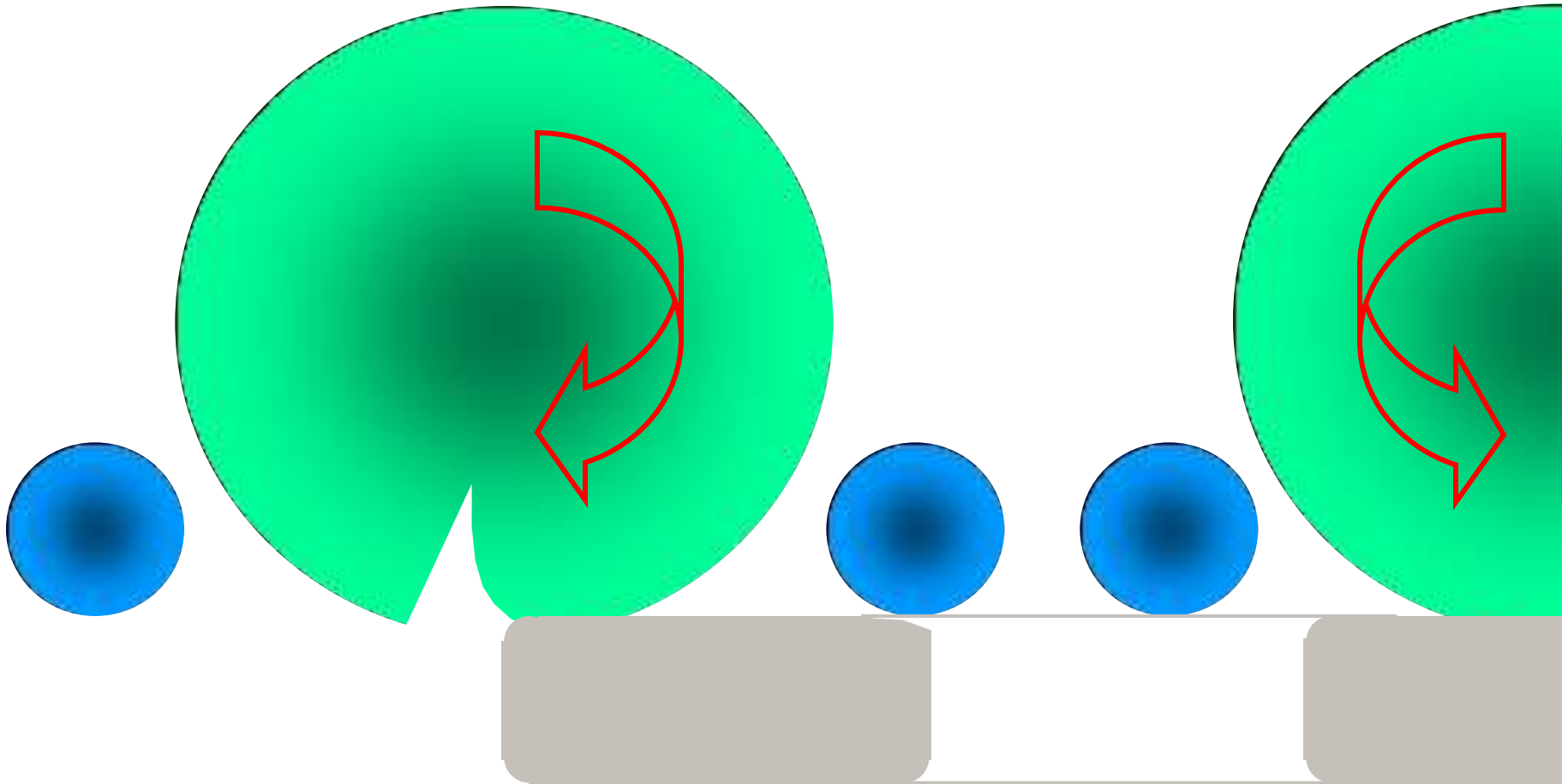


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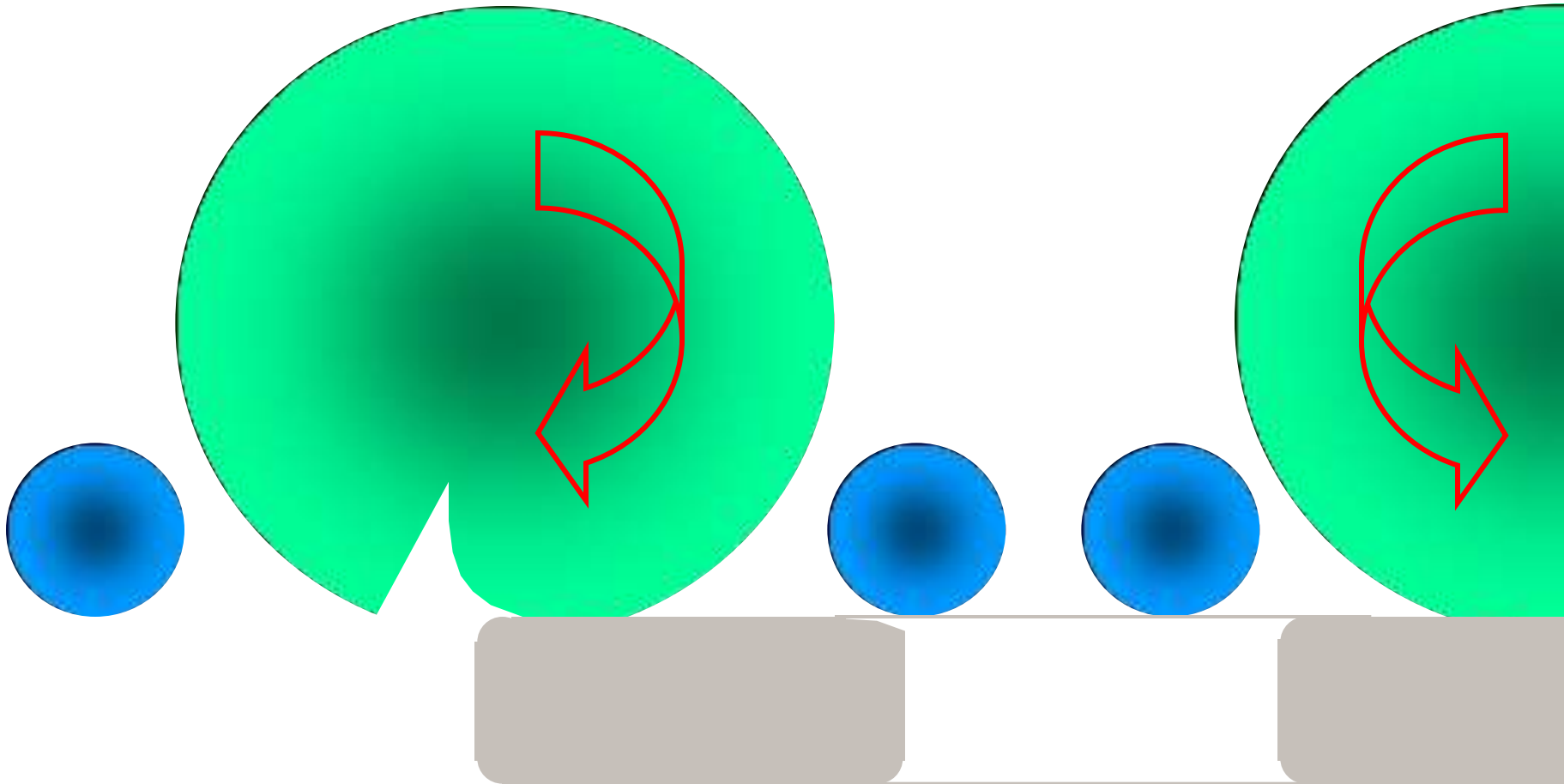


Deburring





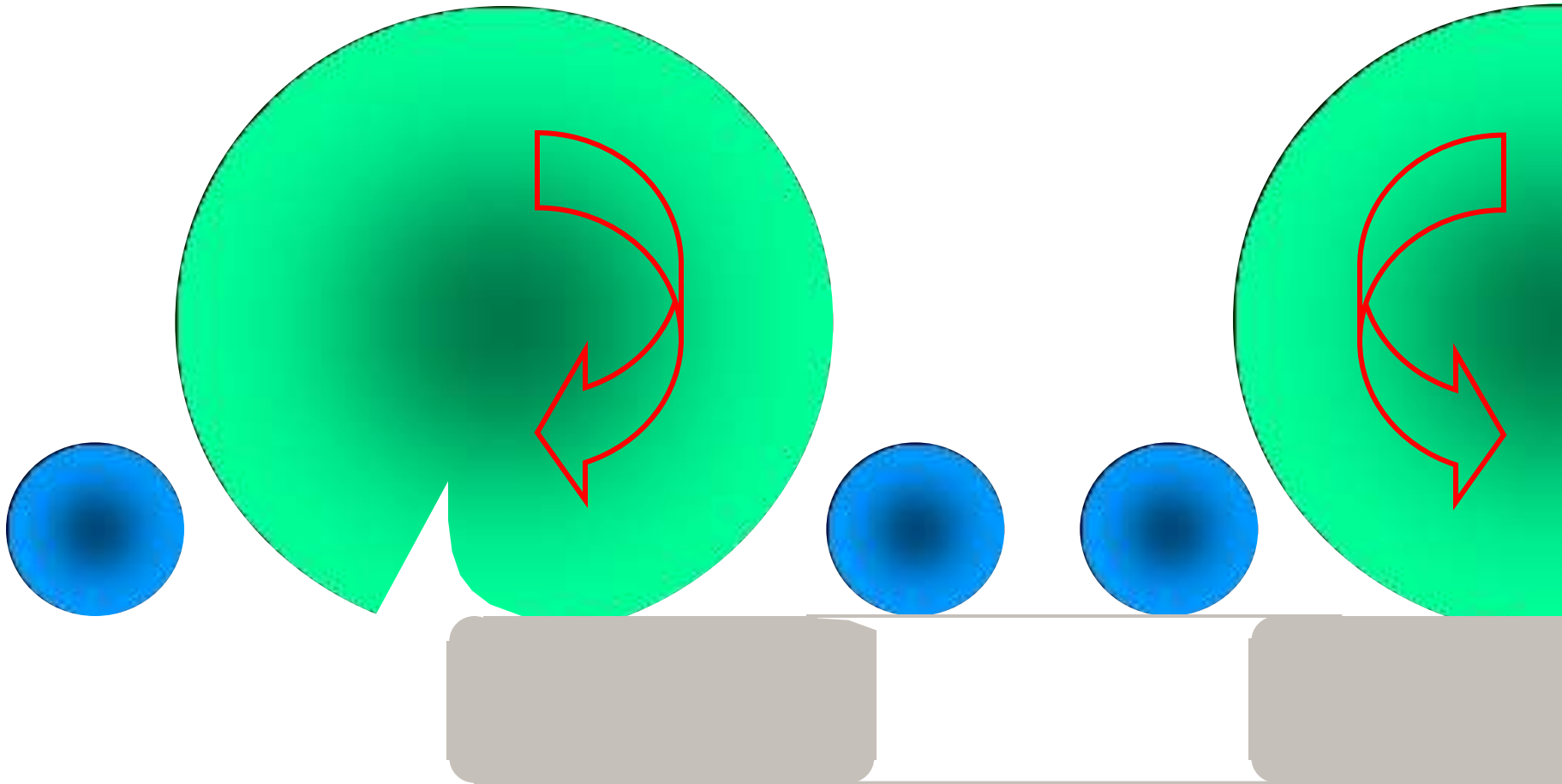
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GECAM

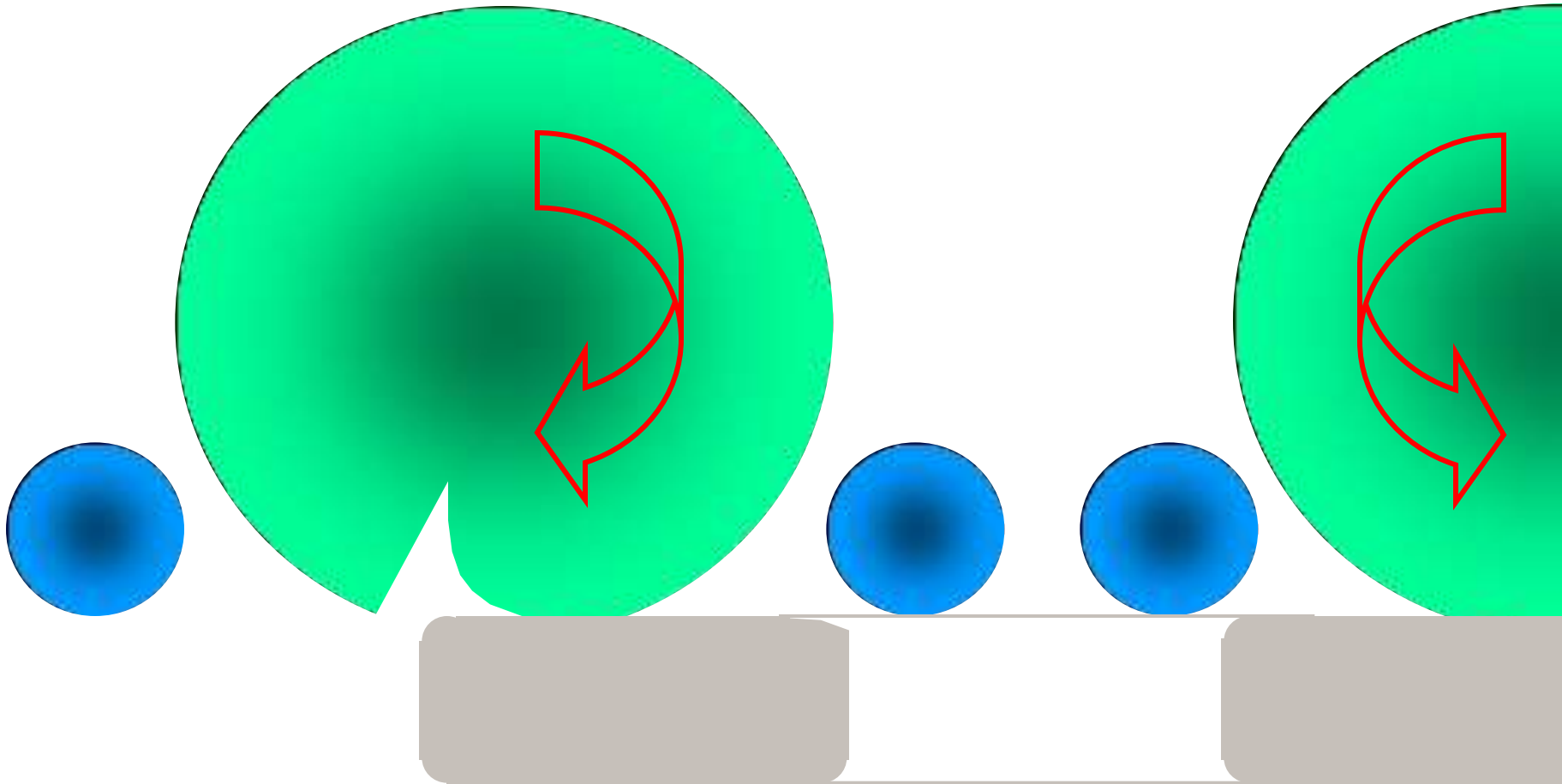


Deburring





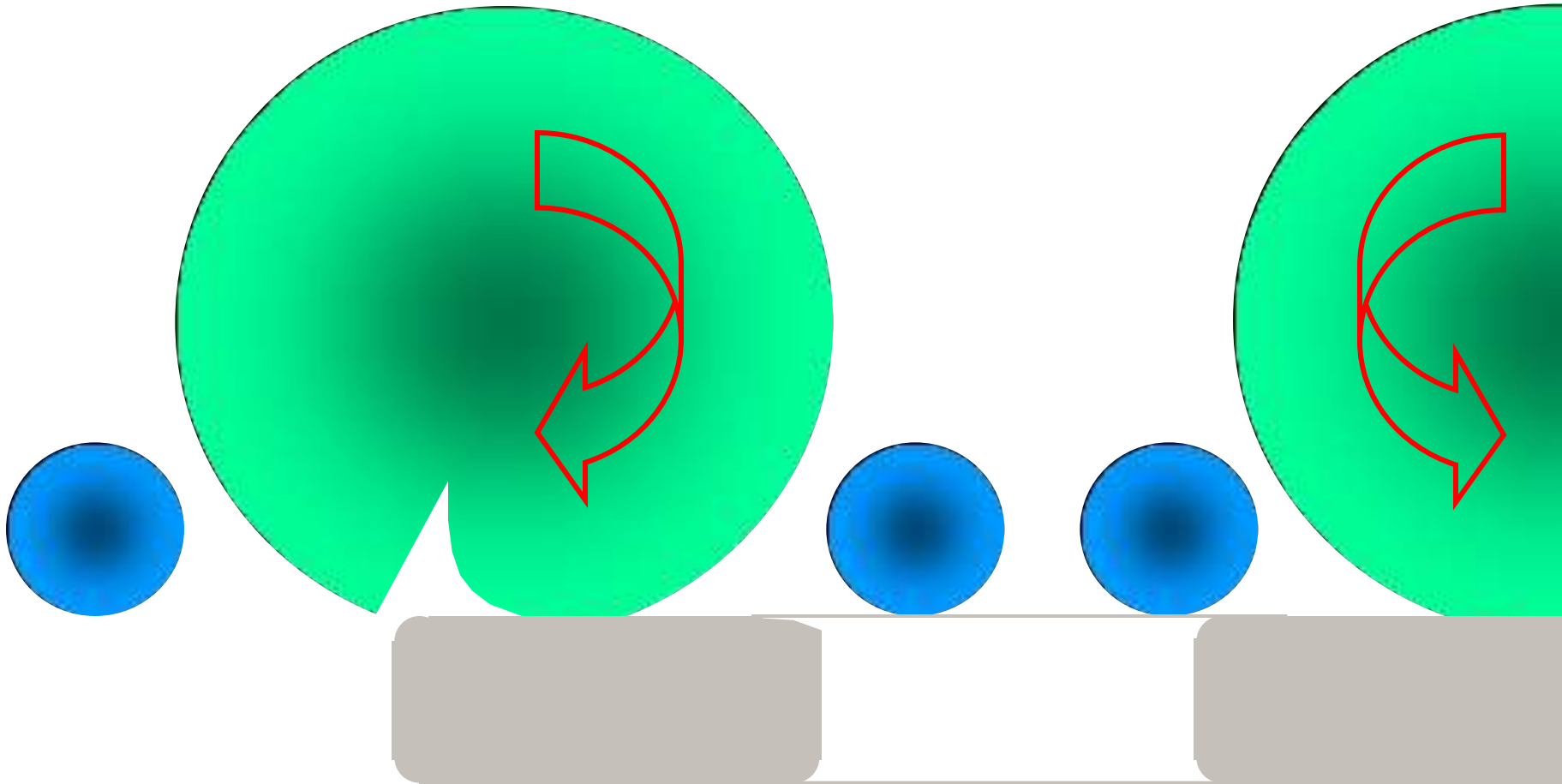
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GECAM



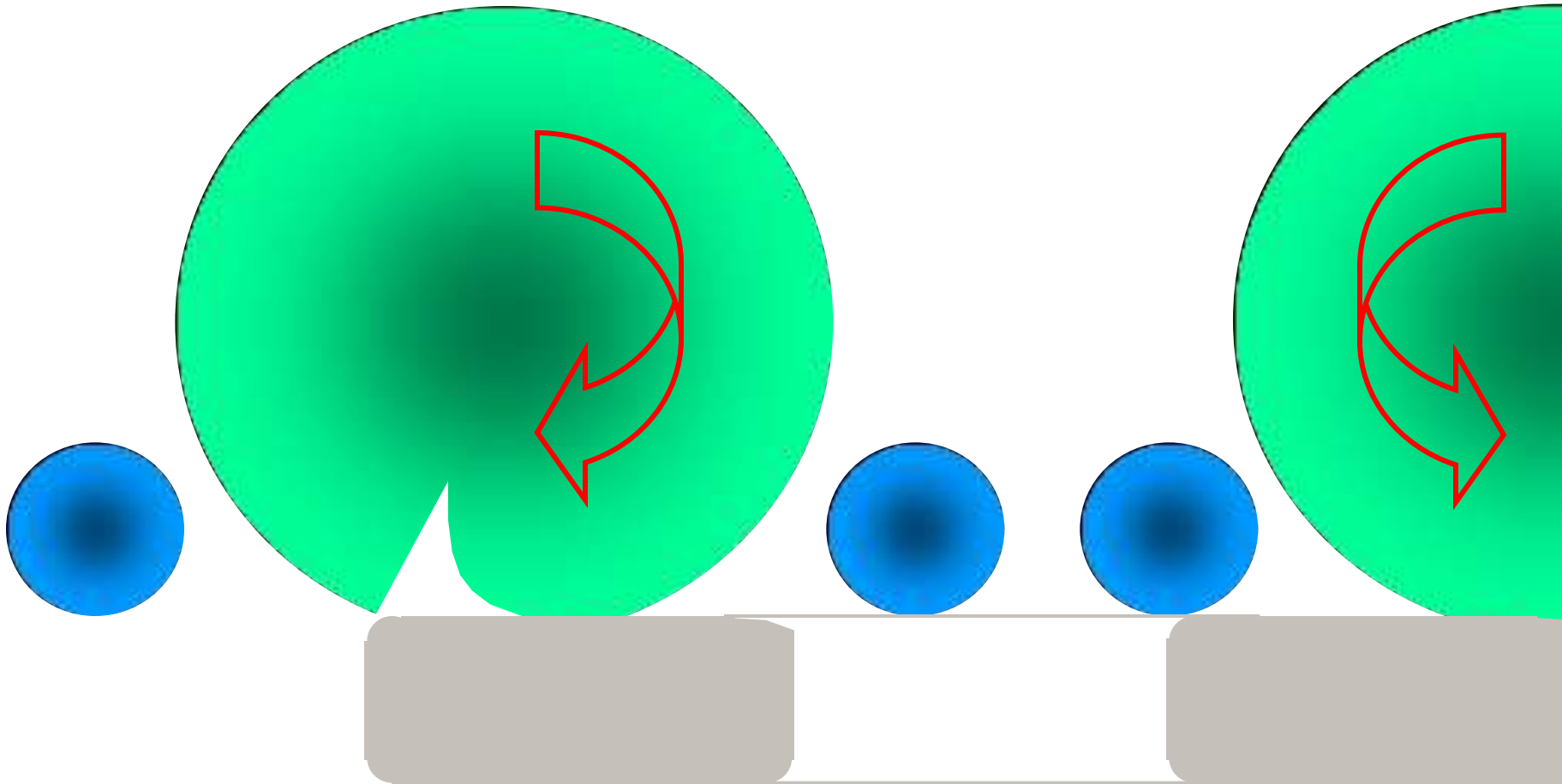
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GECAM

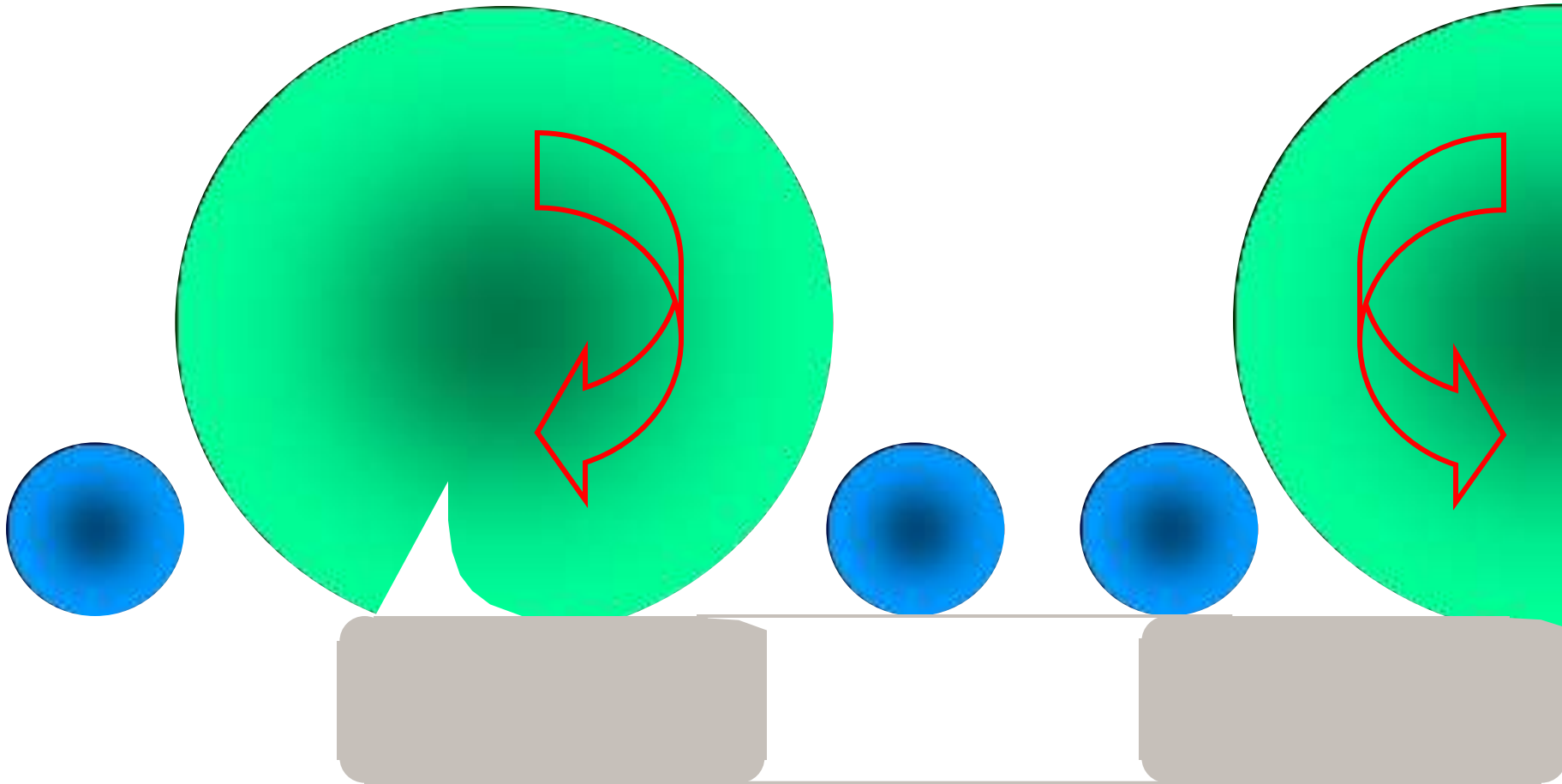


Deburring





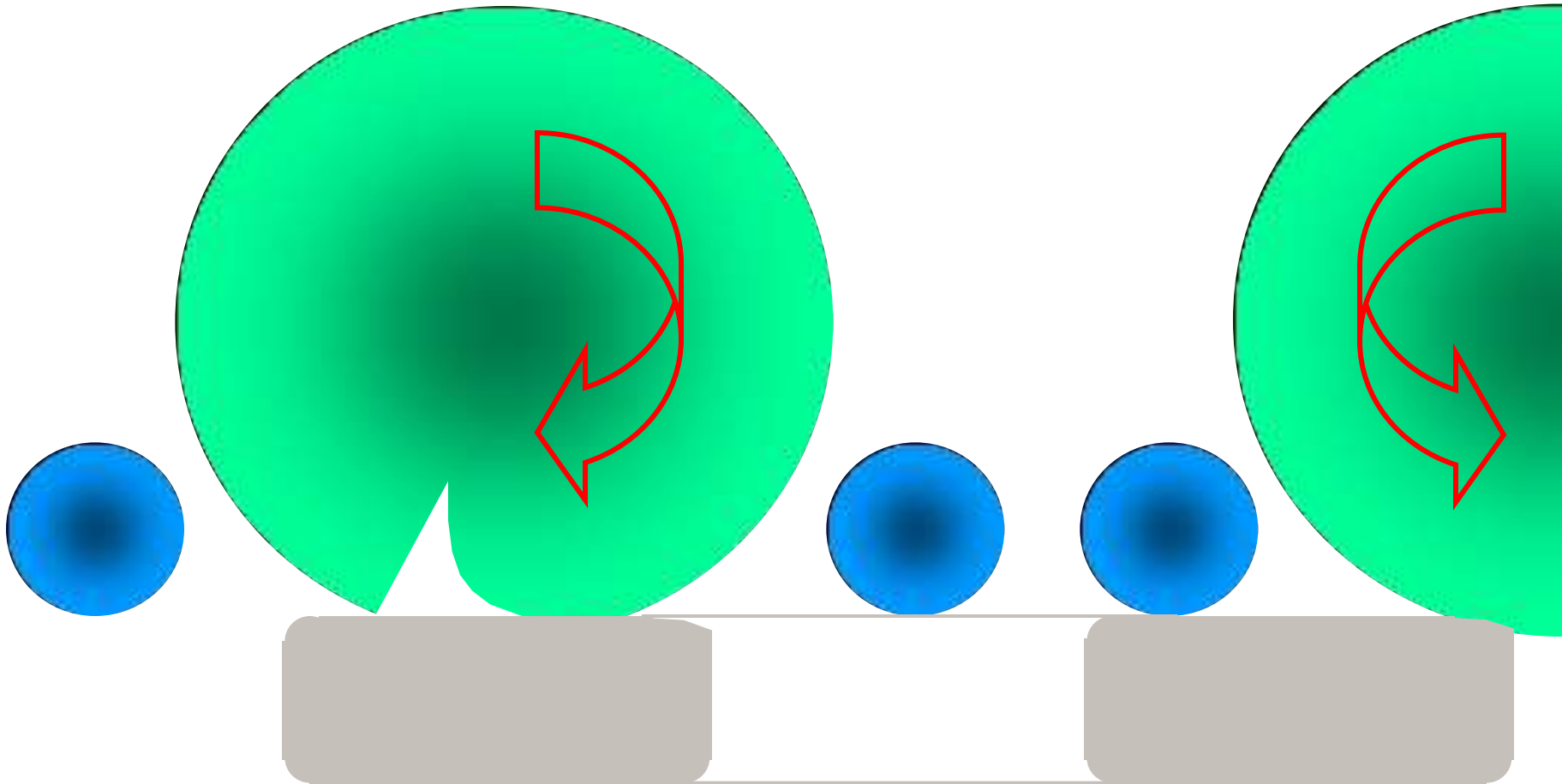
Deburring



GECAM

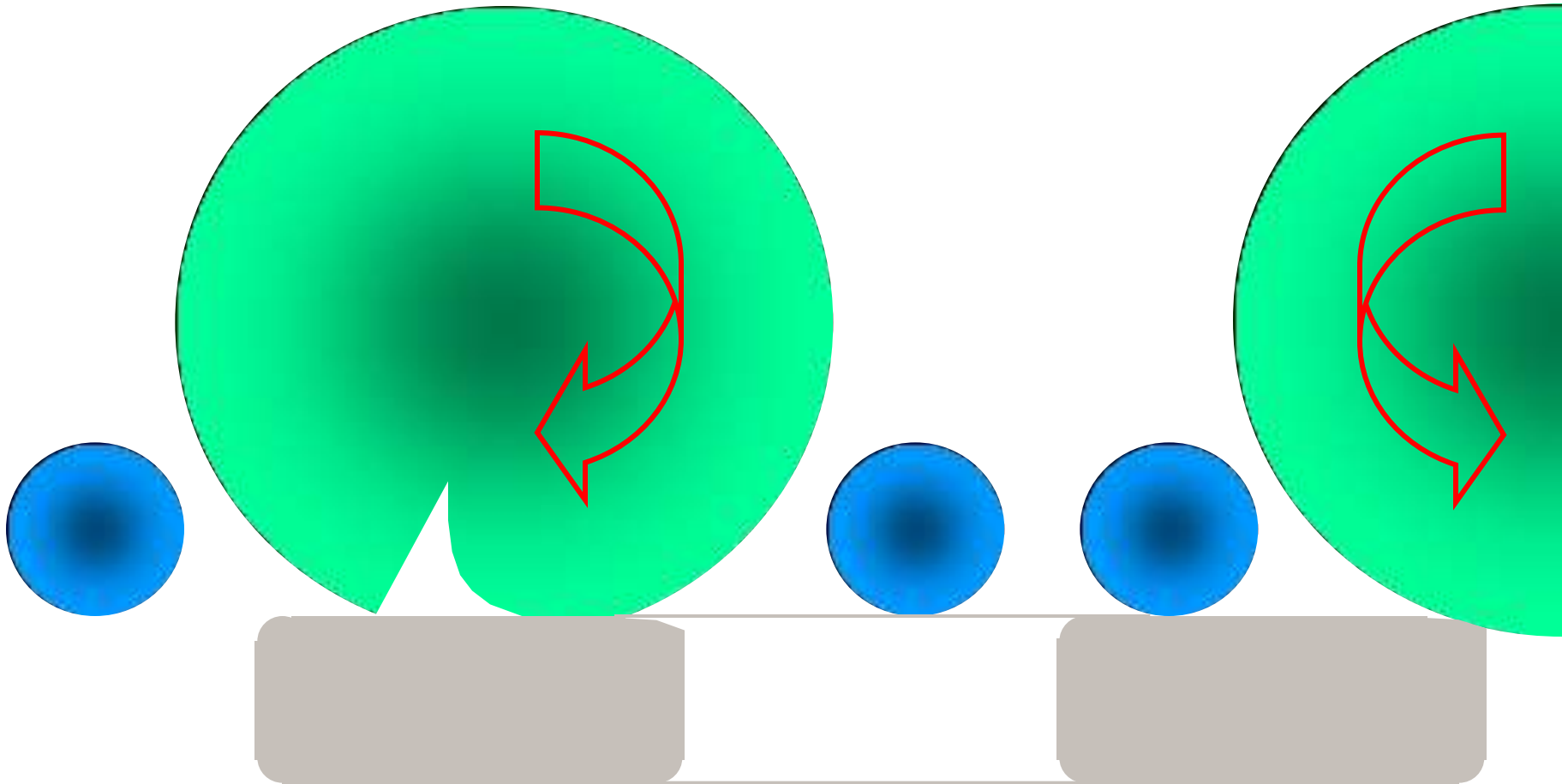


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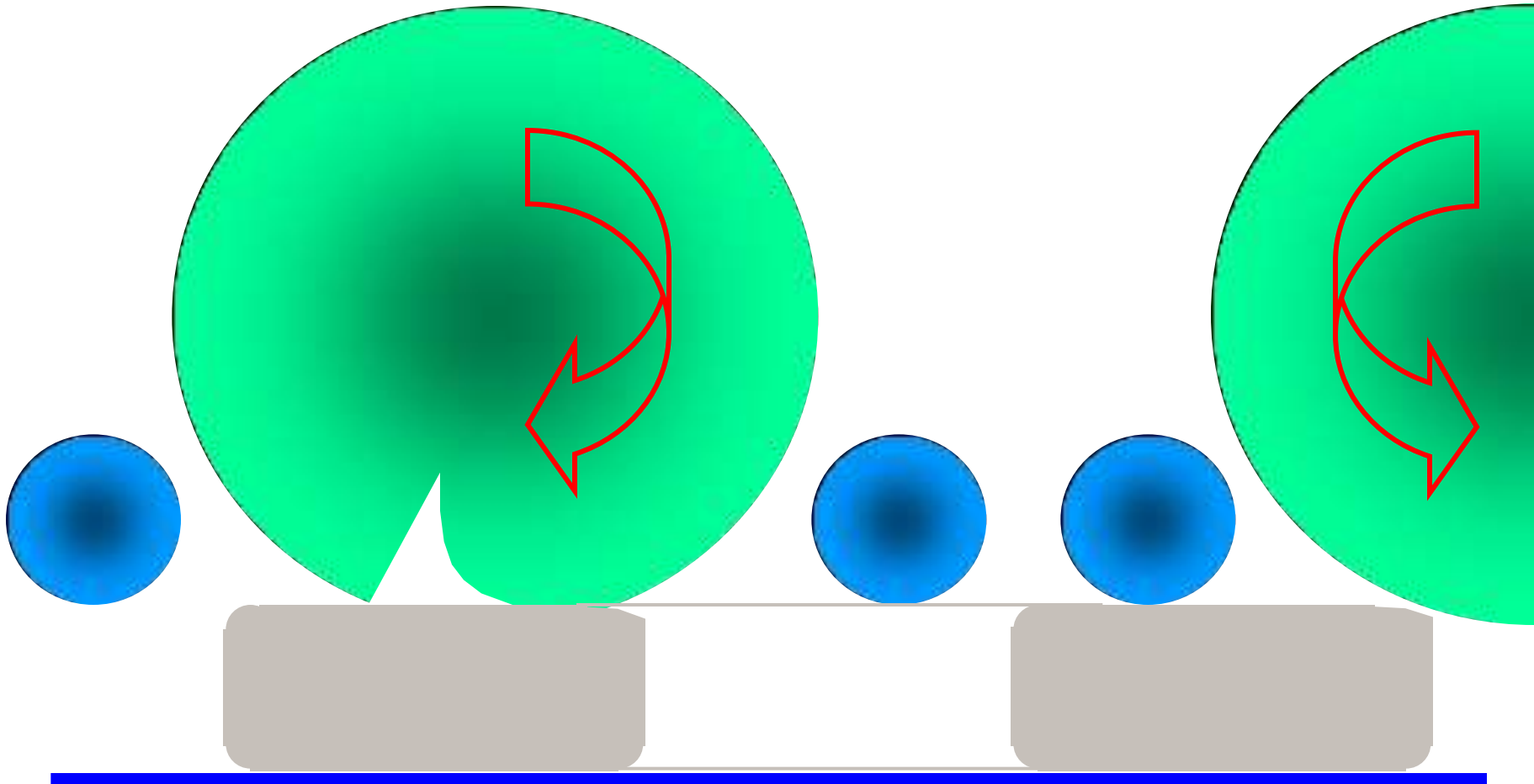


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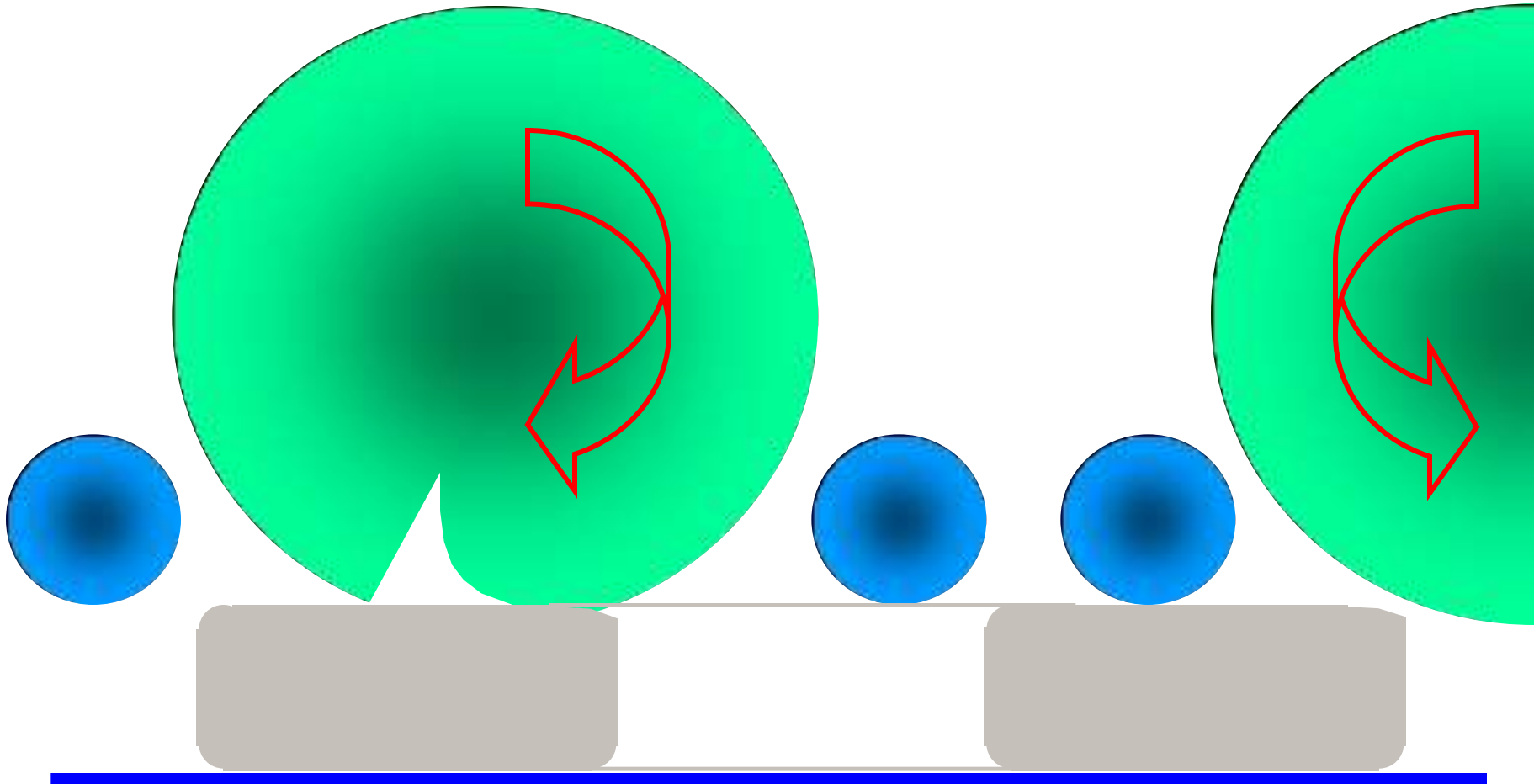
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GECAM



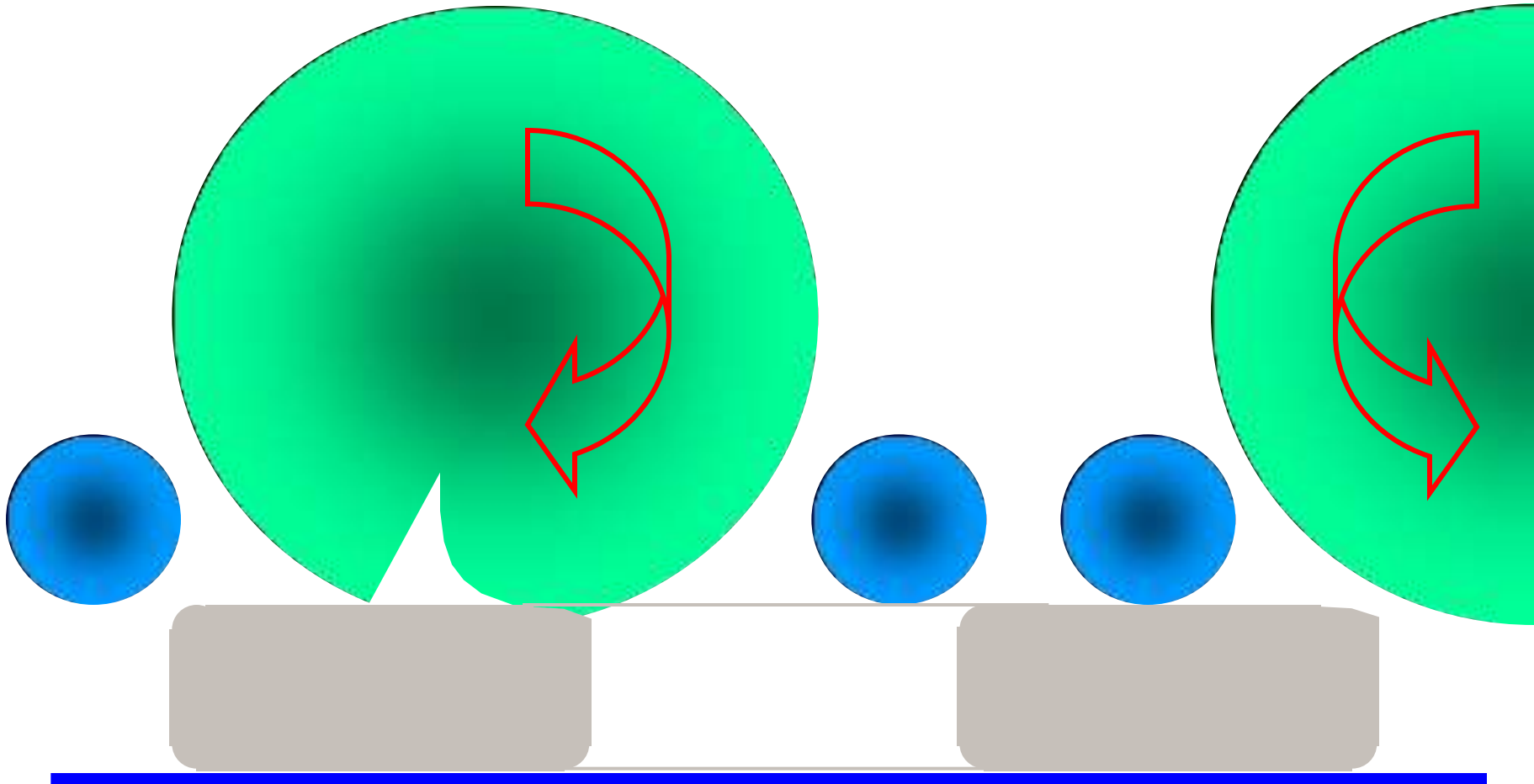
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GECAM

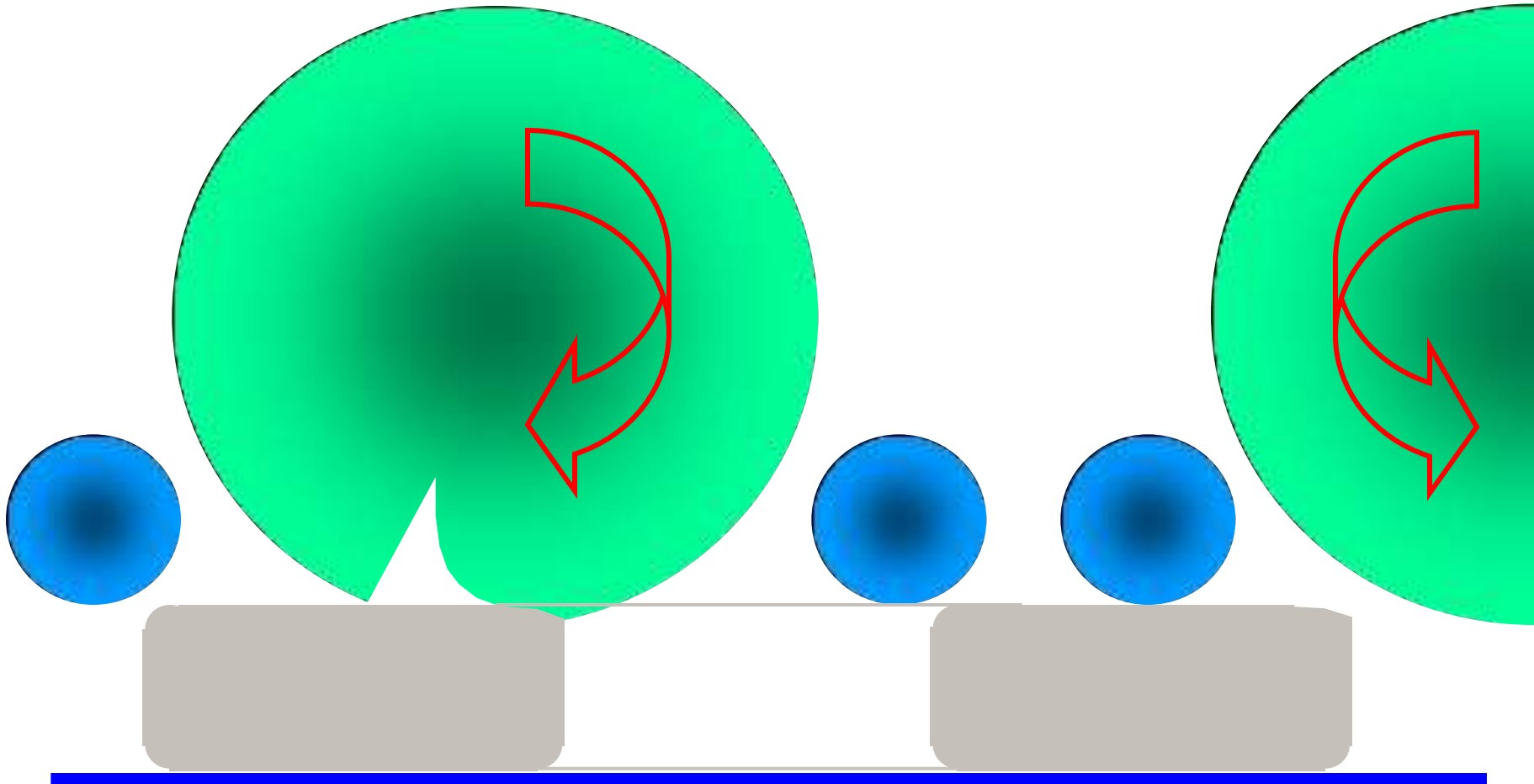


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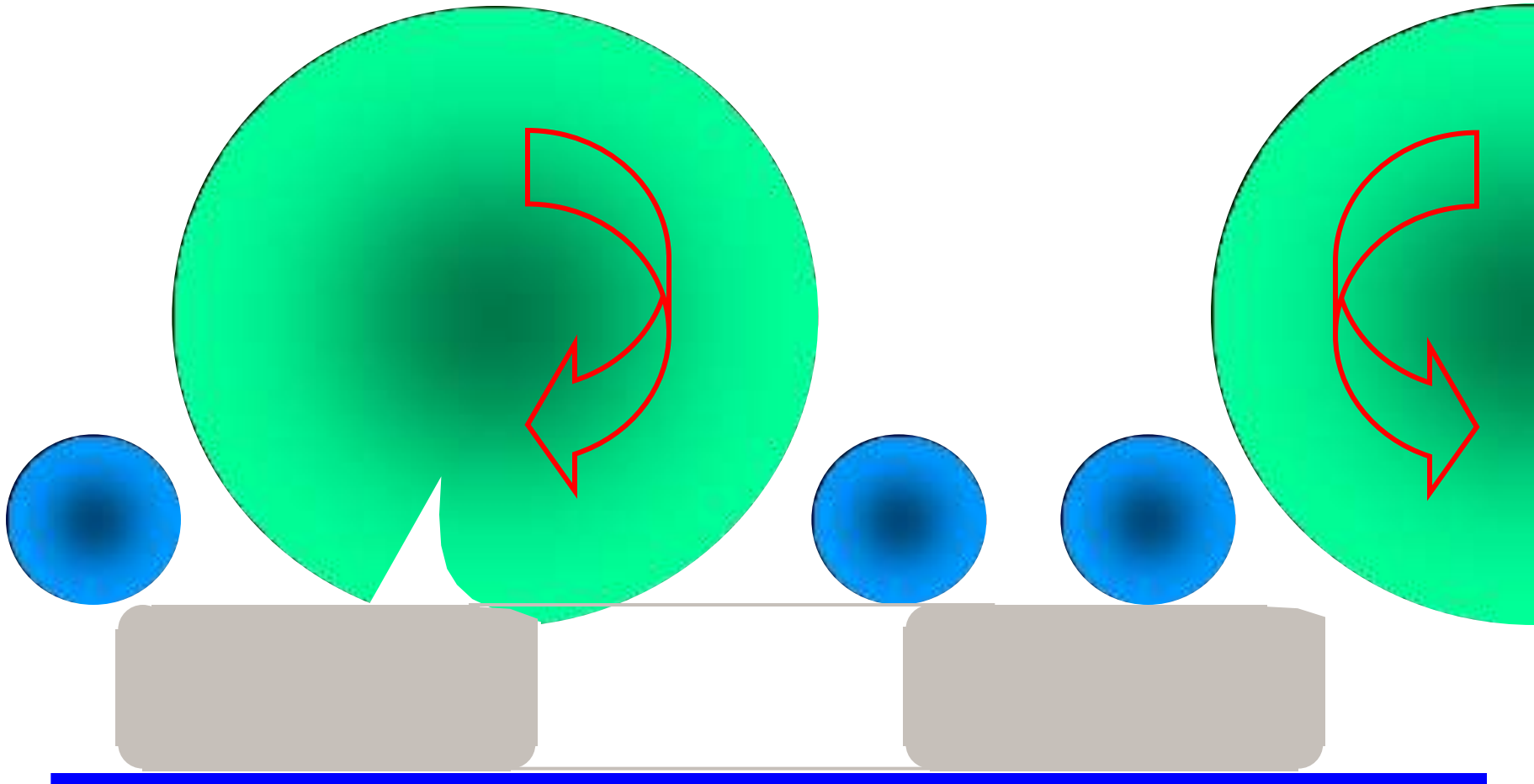


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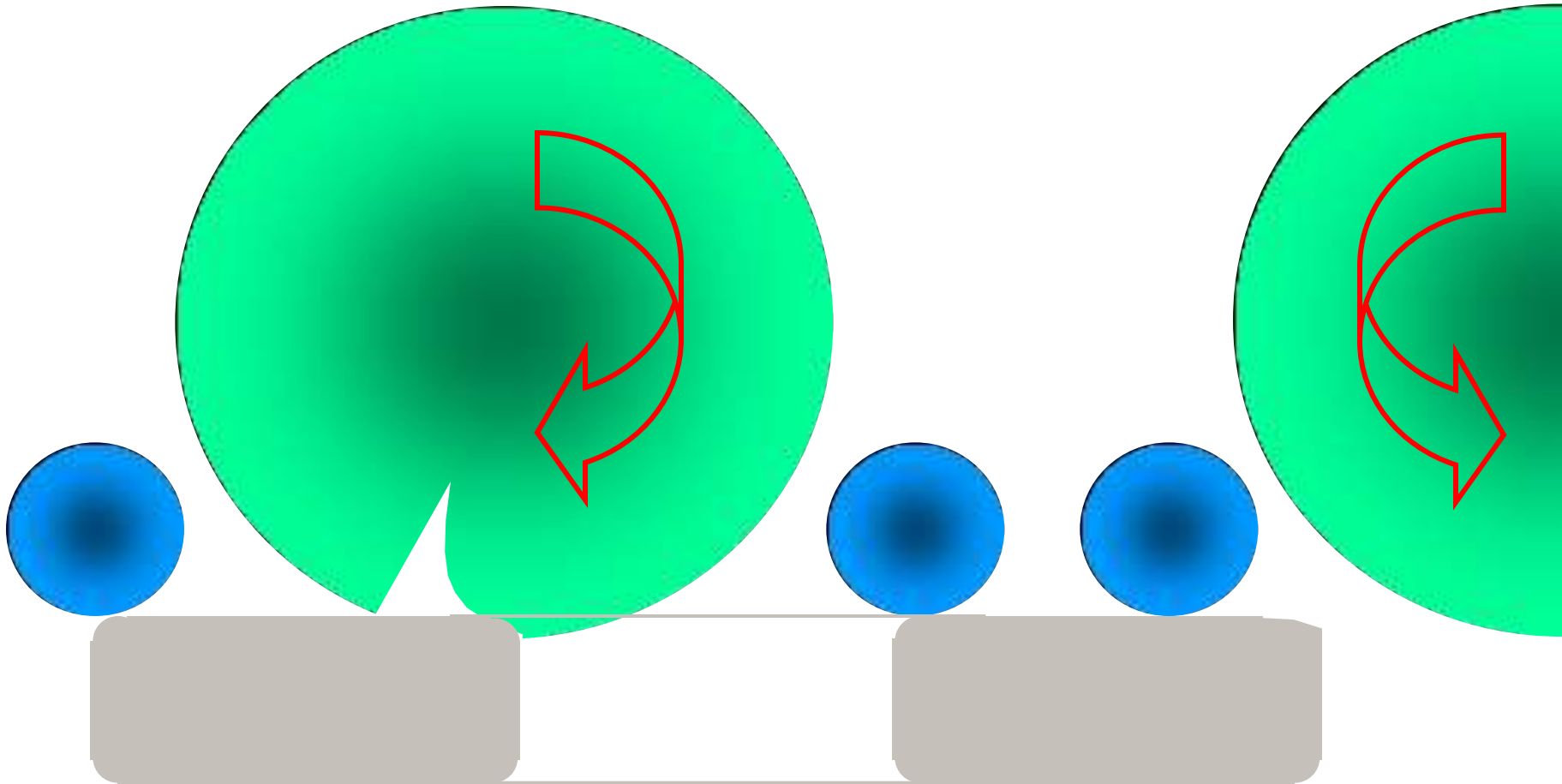
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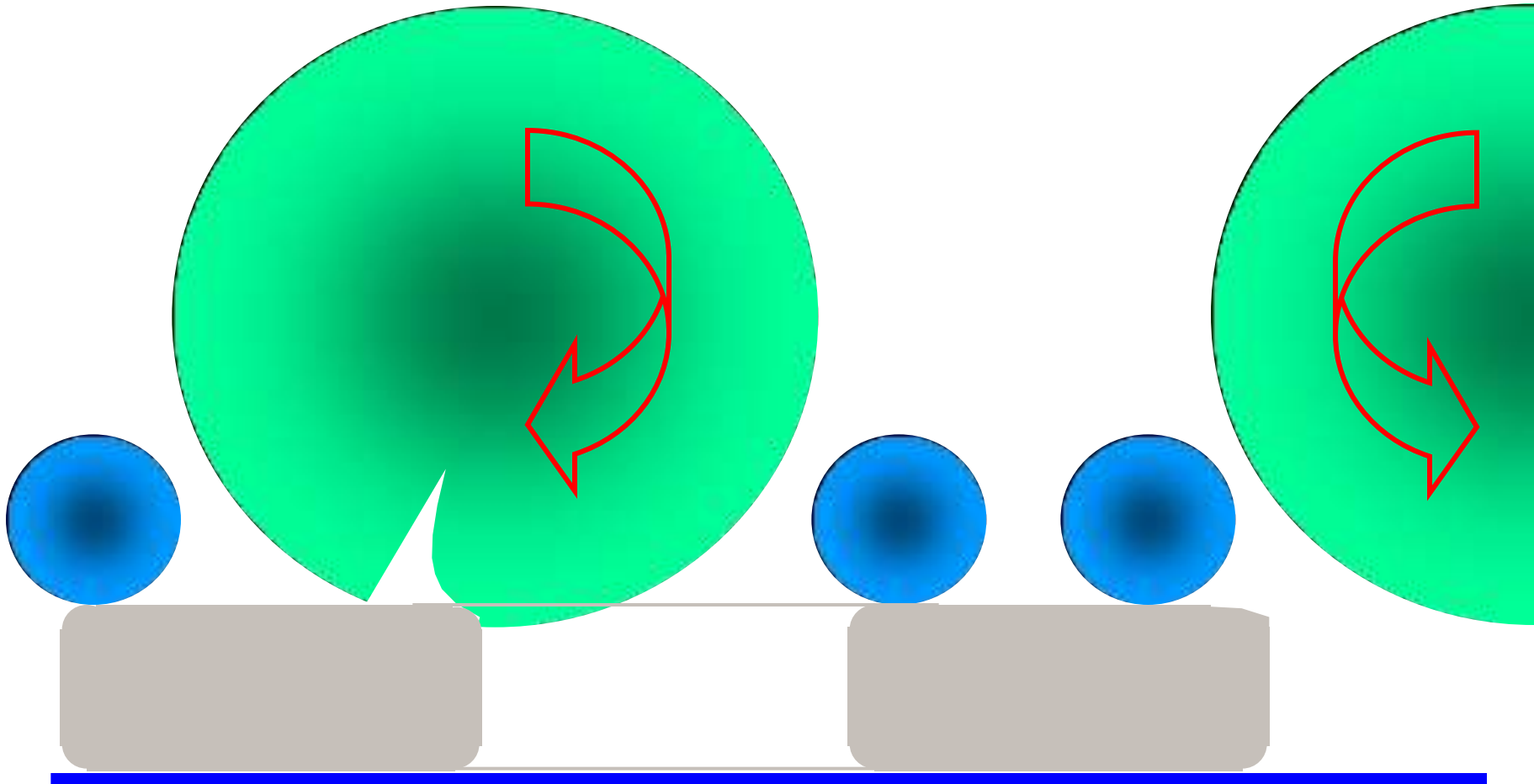


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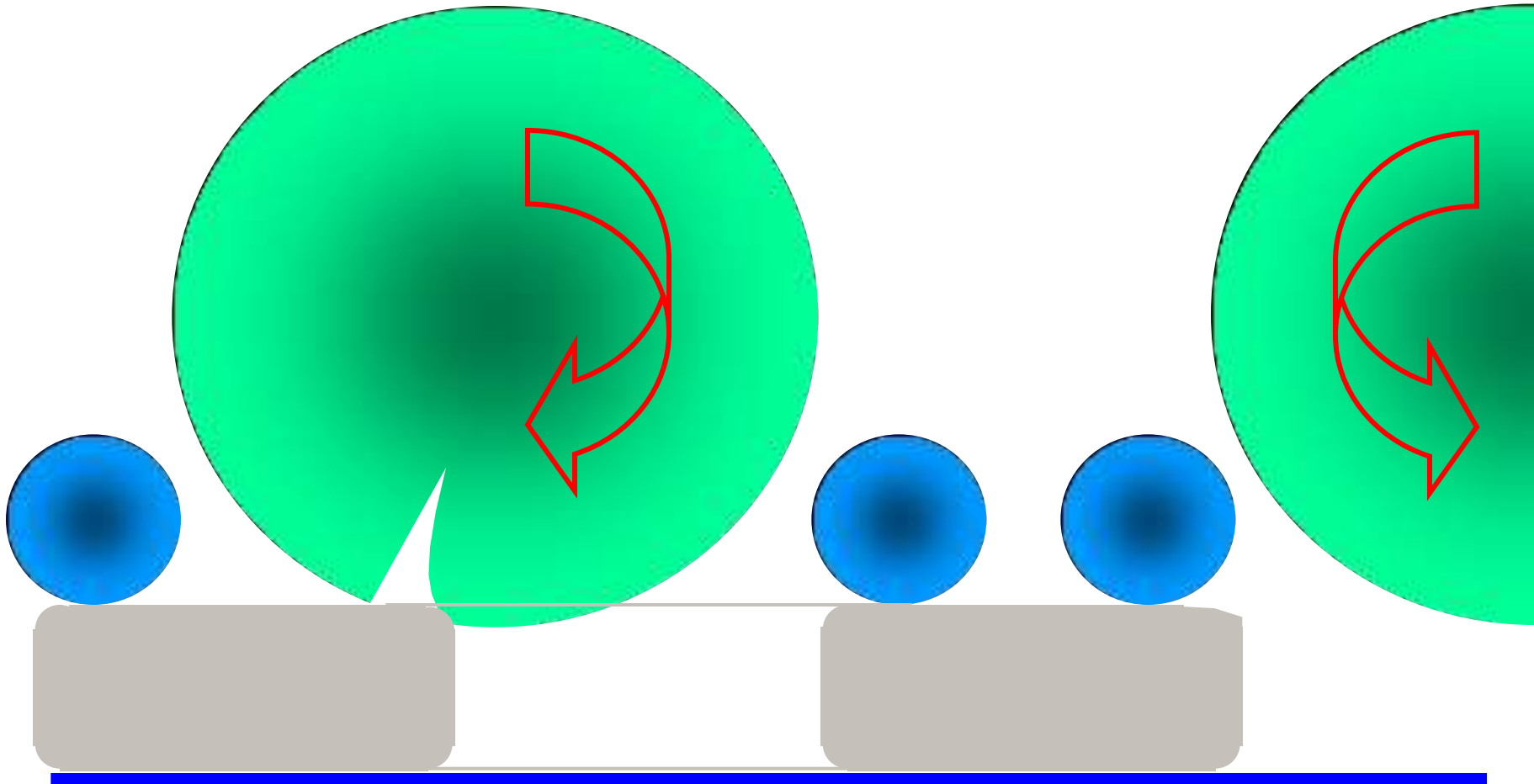


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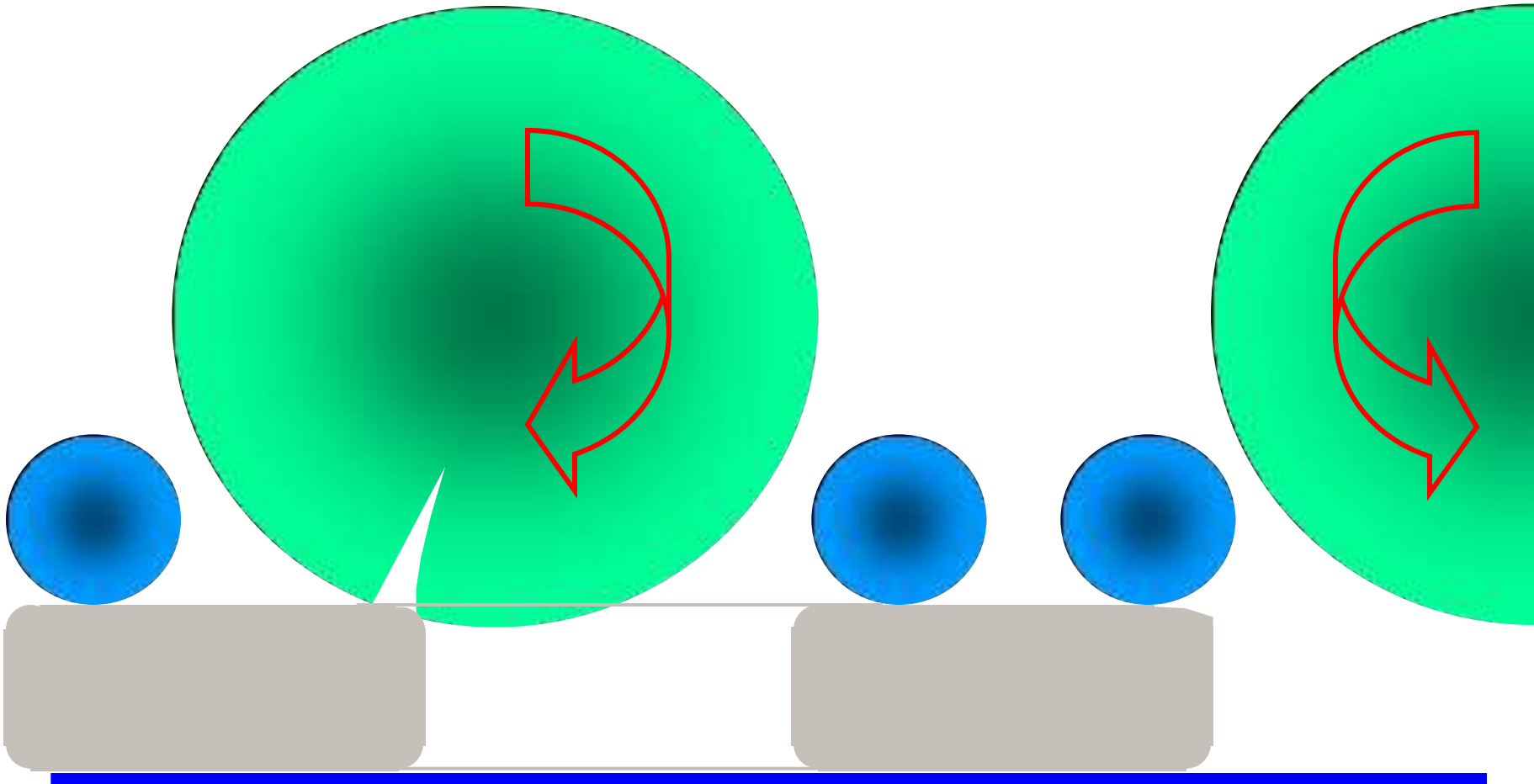
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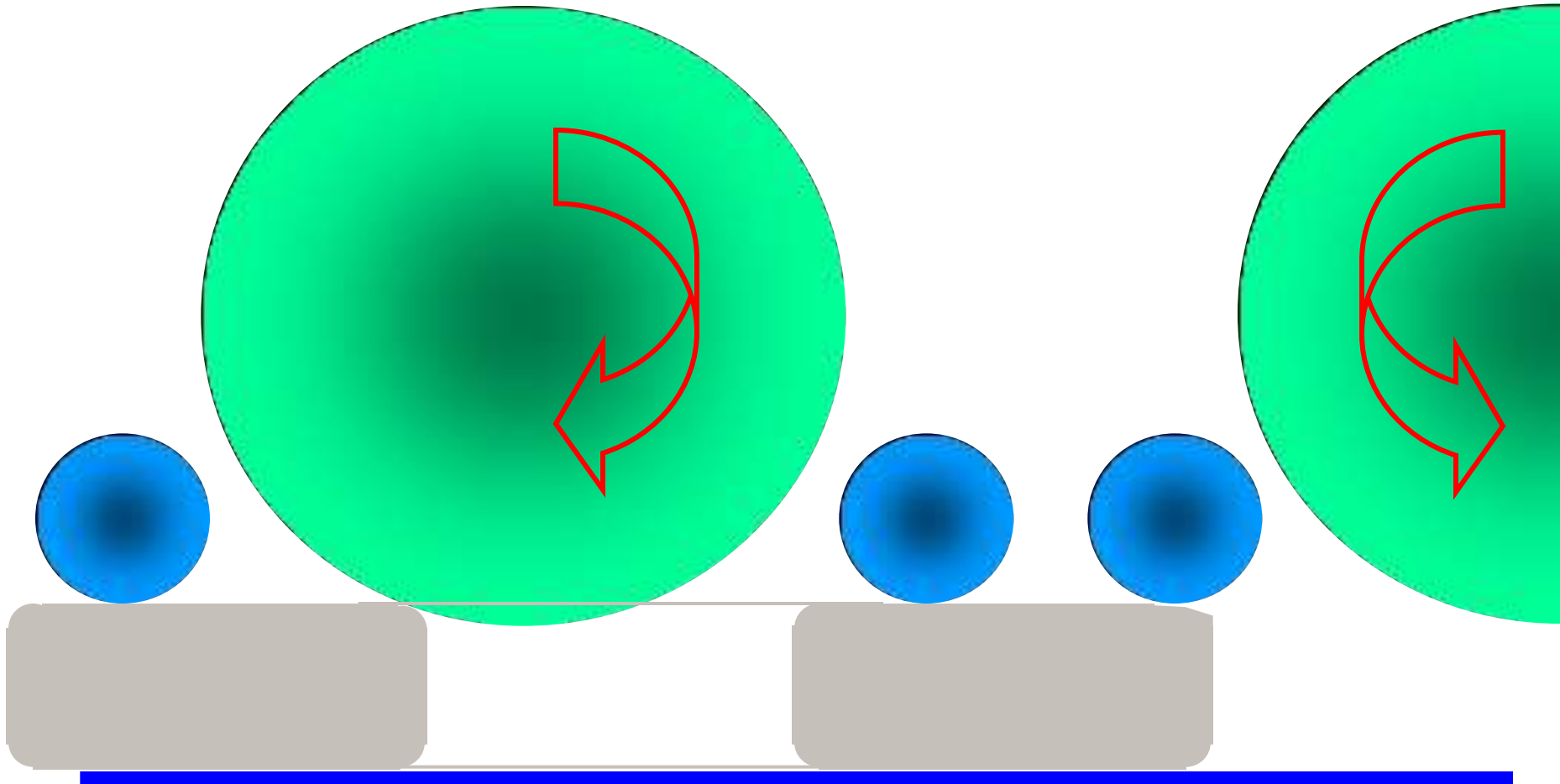
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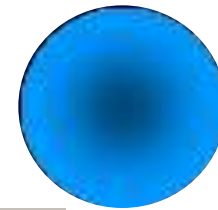
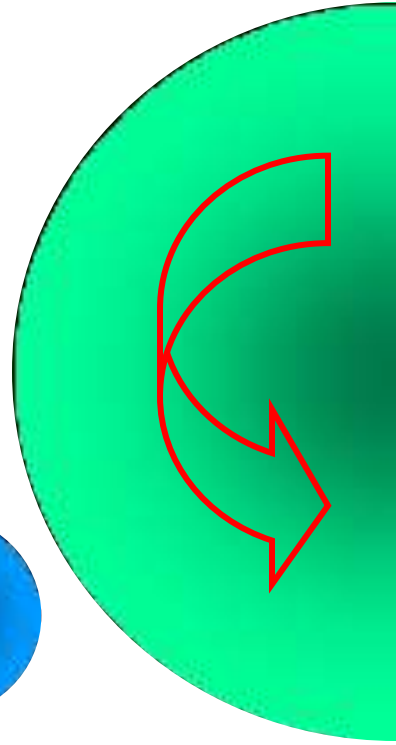
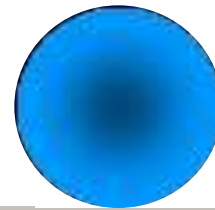
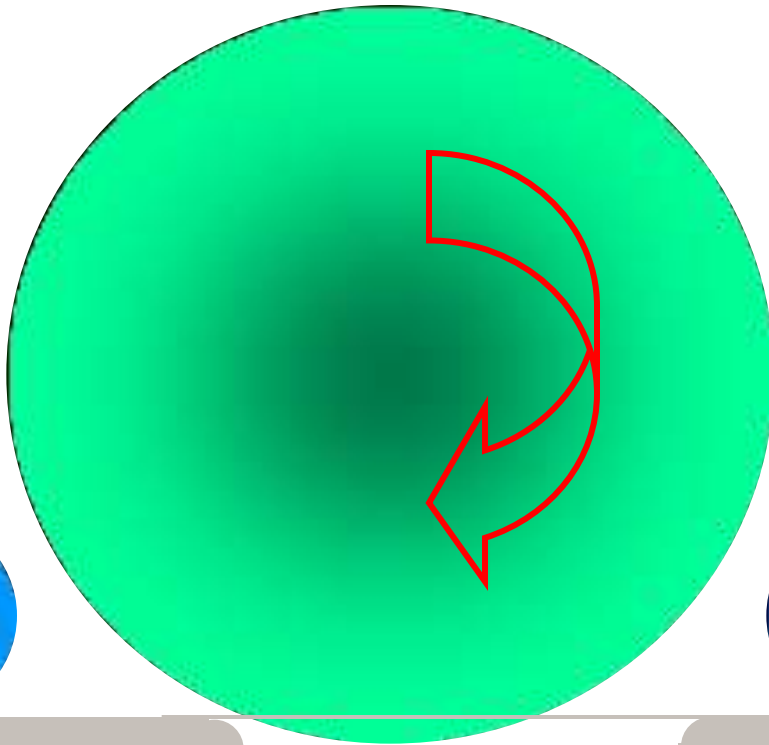
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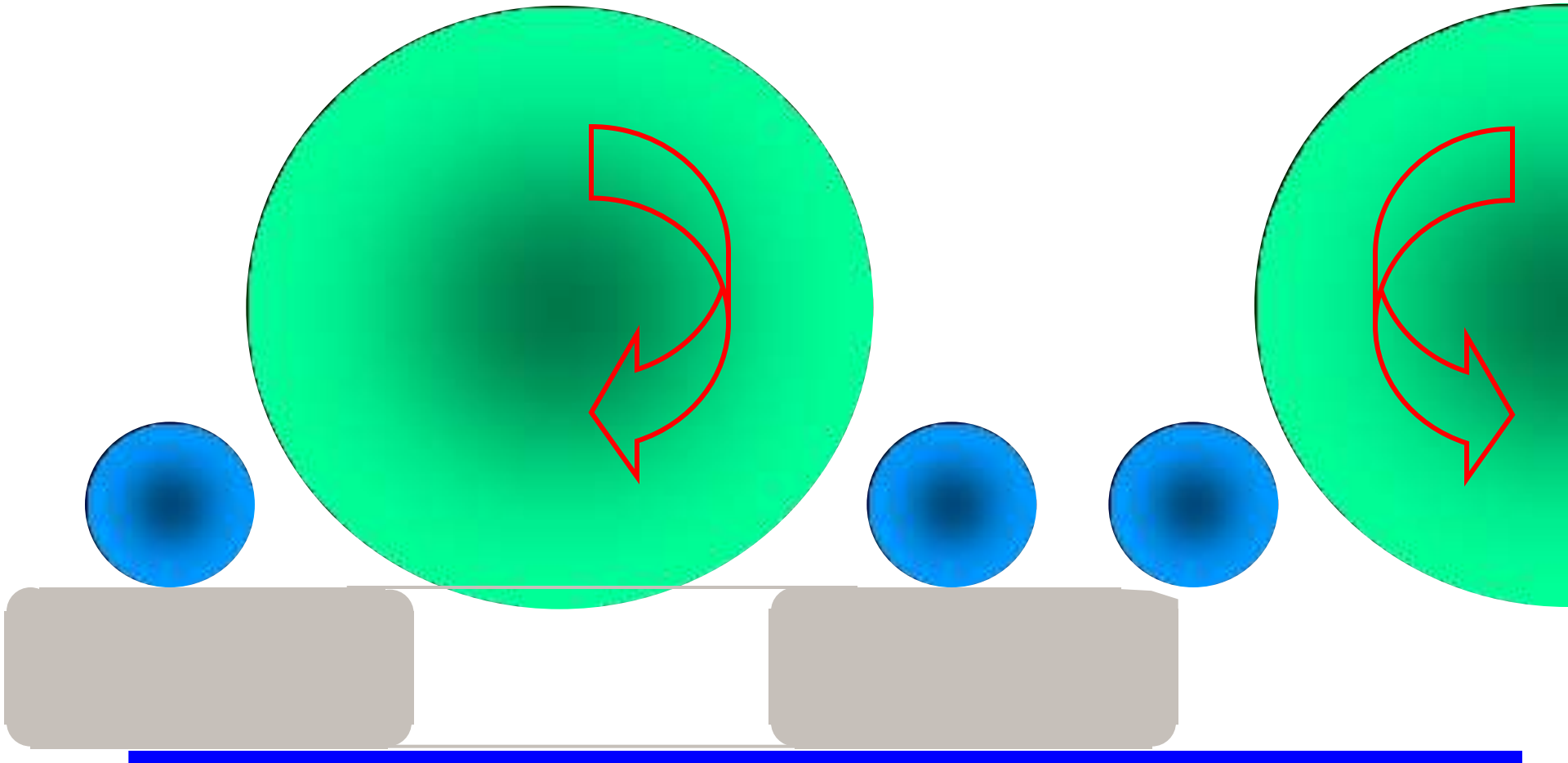
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Deburring

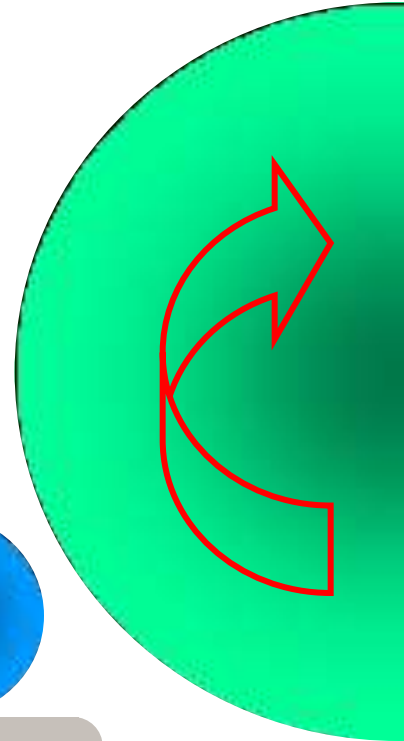
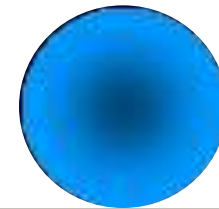
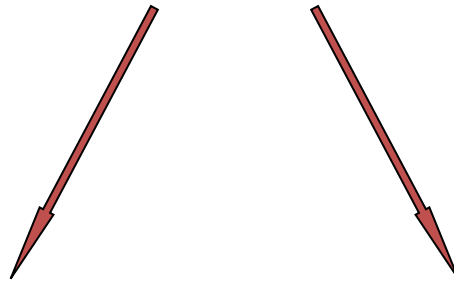




Deburring

Grinding with 2 Brushes

The good result on the edge

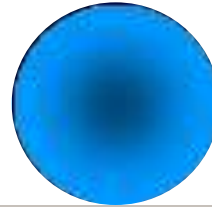
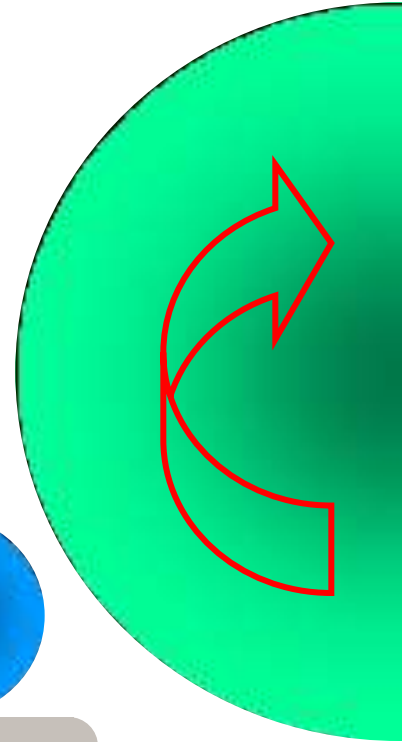


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Quality assured



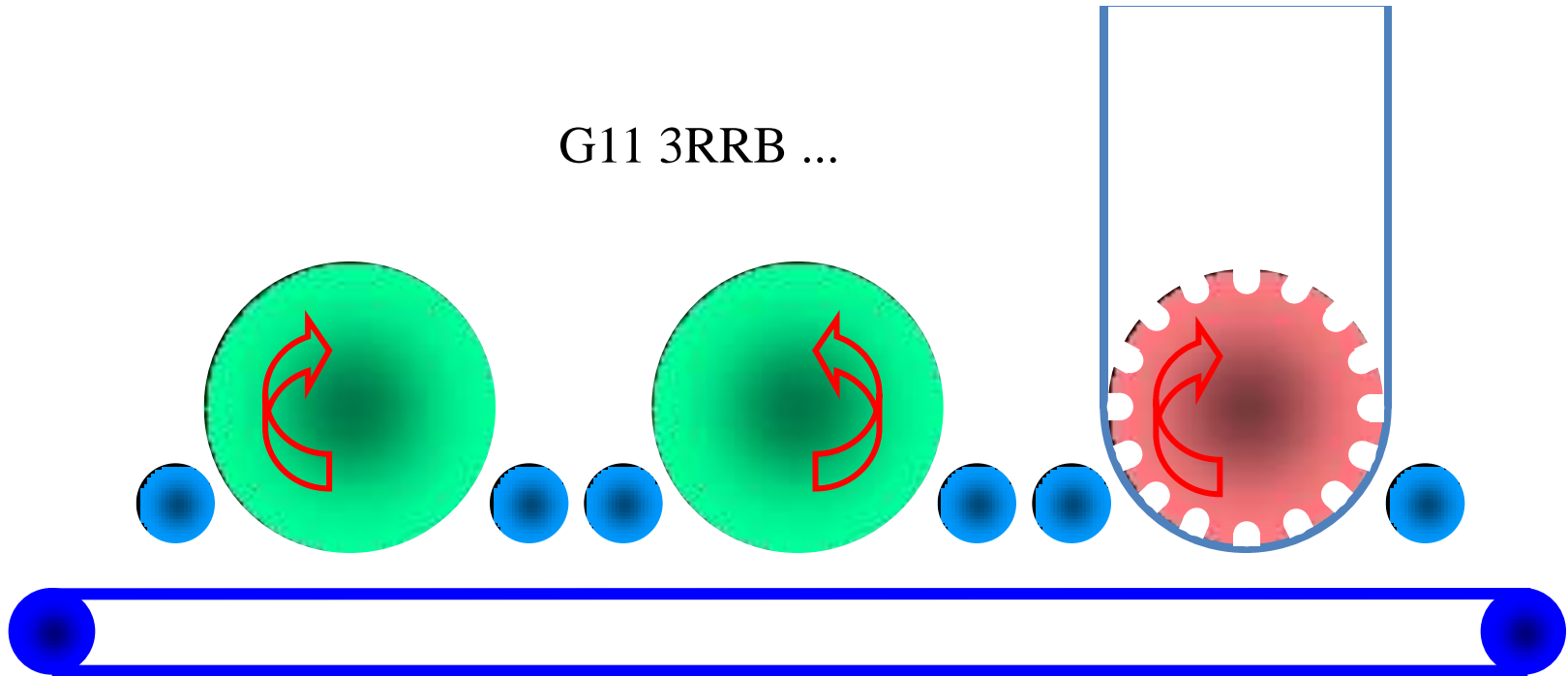
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Deburring

G11 3RRB

G11 3RRB ...



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wet machine, advantages

1° choice for grinding and deburring mixed materials such as steel, stainless steel and aluminium,

the coolant avoids material contamination,
and continuously cleans abrasive belts,
brushes,
pinch rollers and conveyor belt

parts remain, cool during operation,

machine always cleaned



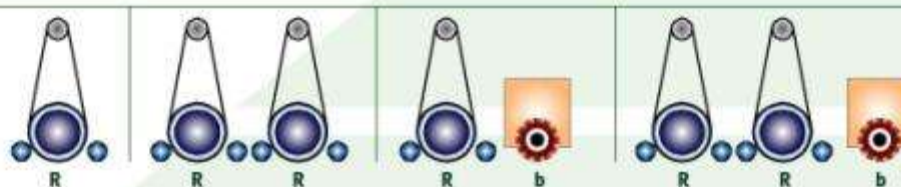
G3 W 2RR



Esempi di Configurazioni

Configuration Examples

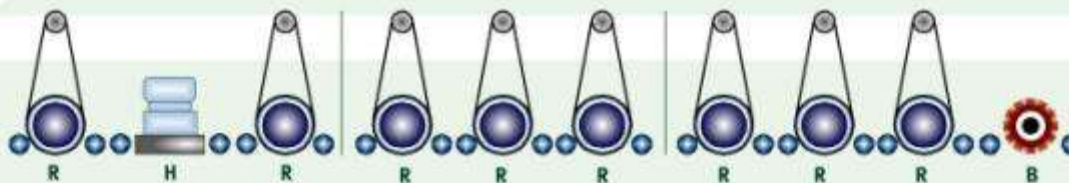
G-6



G-11



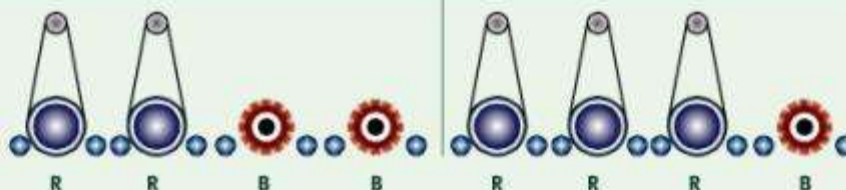
G-13



G-16

G-13

G-16



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END