







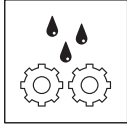





Oras

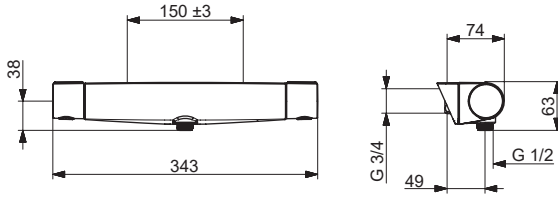
Installation and maintenance guide

		4-12
		13-15
		16-21
		22-24
		24-26
		27-29
		30



7160N

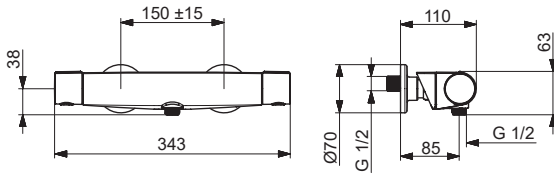
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +80°C



mpi.oras.com/7160N

7160NU

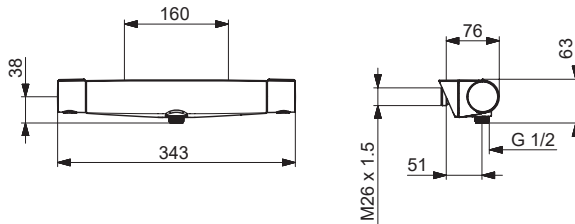
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +80°C



mpi.oras.com/7160NU

7150N

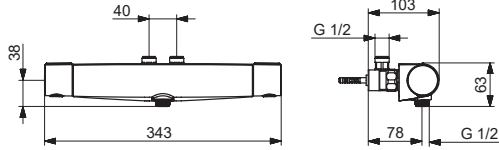
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +80°C



mpi.oras.com/7150N

7151N

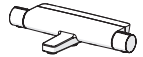
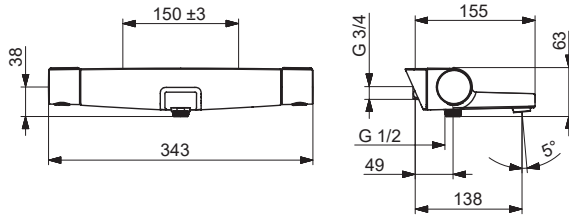
I (ISO 3822)
EN1111
100 - 1000 kPa
0.12 l/s (Eco)
0.22 l/s (300 kPa)
250 kPa (0.2 l/s)
max. +80°C



mpi.oras.com/7151N

7140N

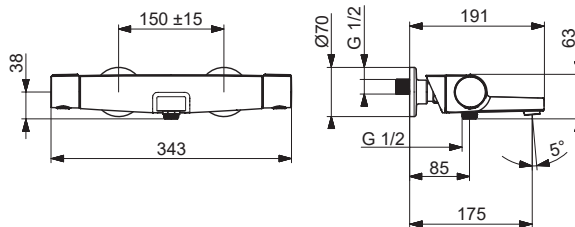
I (ISO 3822)
EN1111
100 - 1000 kPa
0.12 l/s (Eco)
0.32/0.22 l/s (300 kPa)
265 kPa (0.3 l/s)
max. +80°C



mpi.oras.com/7140N

7140NU

I (ISO 3822)
EN1111
100 - 1000 kPa
0.12 l/s (Eco)
0.32/0.22 l/s (300 kPa)
265 kPa (0.3 l/s)
max. +80°C

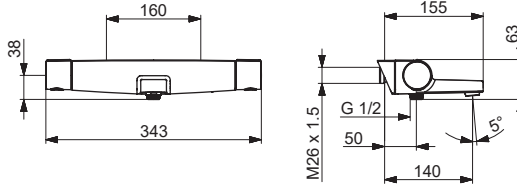


mpi.oras.com/7140NU



7154N

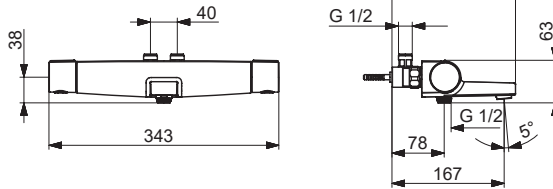
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.32/0.22 l/s (300 kPa)
 265 kPa (0.3 l/s)
 max. +80°C



mpi.oras.com/7154N

7155N

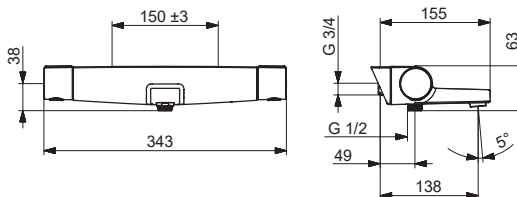
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.32/0.22 l/s (300 kPa)
 265 kPa (0.3 l/s)
 max. +80°C



mpi.oras.com/7155N

7140GN

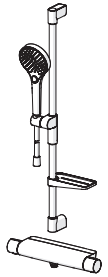
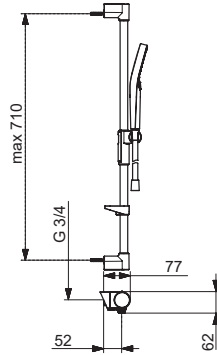
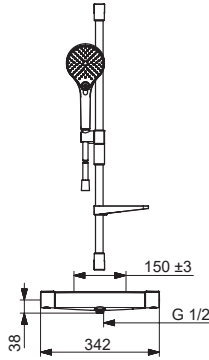
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.22/0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +80°C



mpi.oras.com/7140GN

7169N

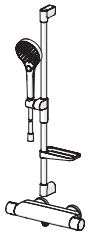
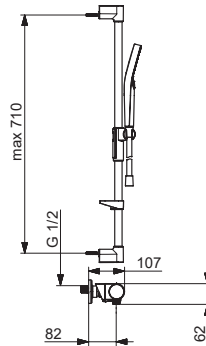
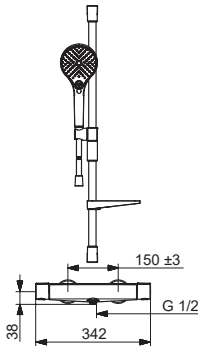
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



mpi.oras.com/7169N

7169NU

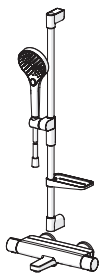
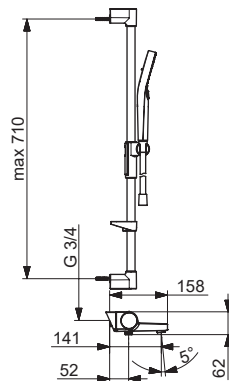
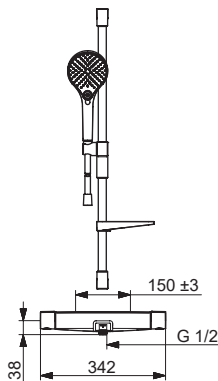
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



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7149N

I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C

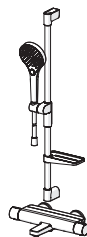
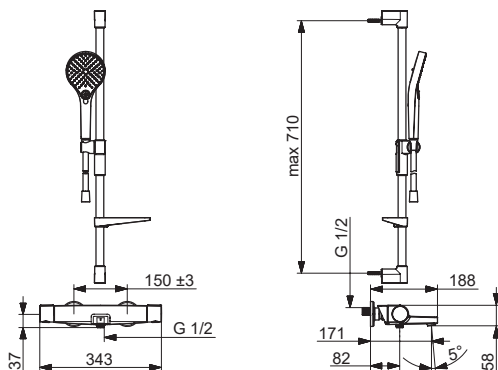


mpi.oras.com/7149N



7149NU

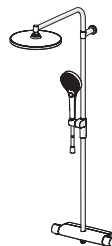
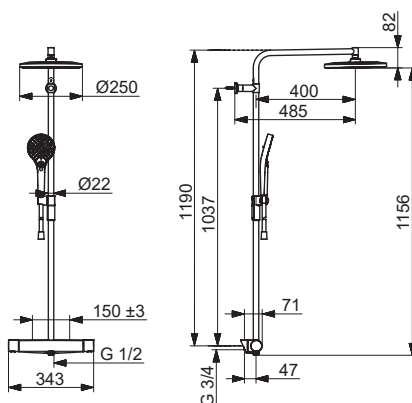
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



mpi.oras.com/7149NU

7192N

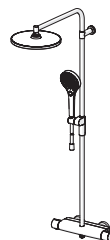
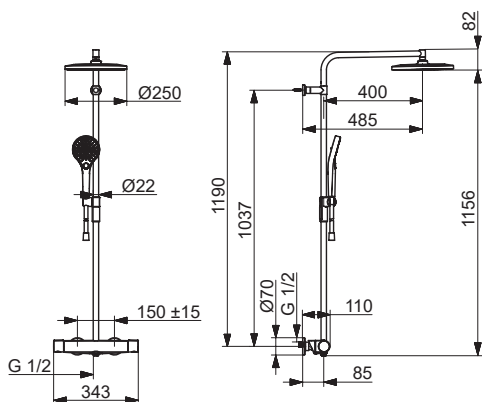
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



mpi.oras.com/7192N

7192NU

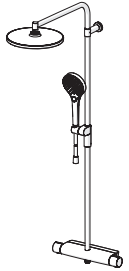
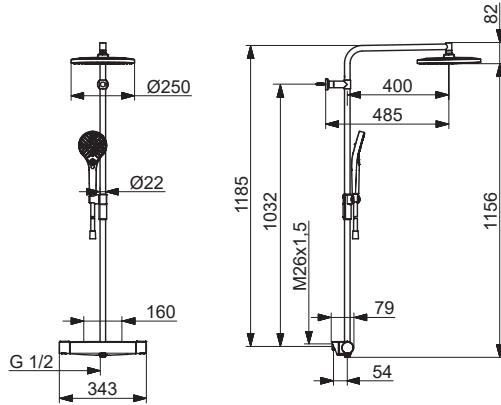
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



mpi.oras.com/7192NU

7156N

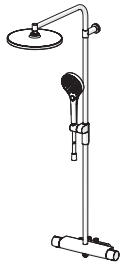
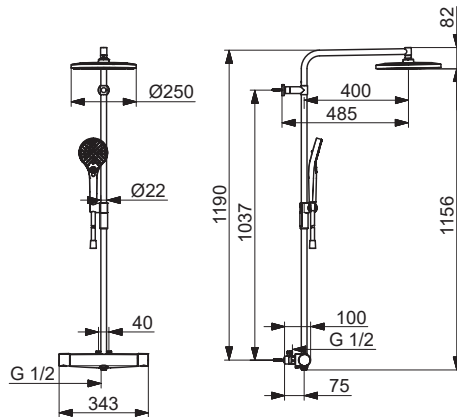
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



mpi.oras.com/7156N

7157N

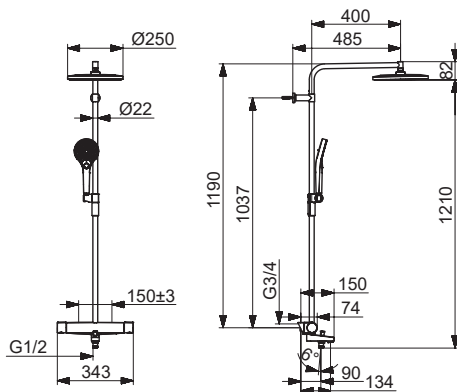
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



mpi.oras.com/7157N

7193N

I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.32/0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C

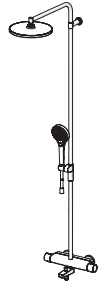
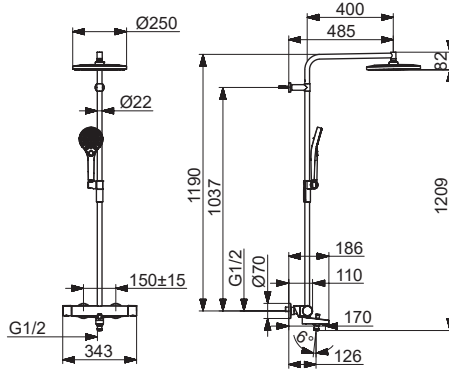


mpi.oras.com/7193N



7193NU

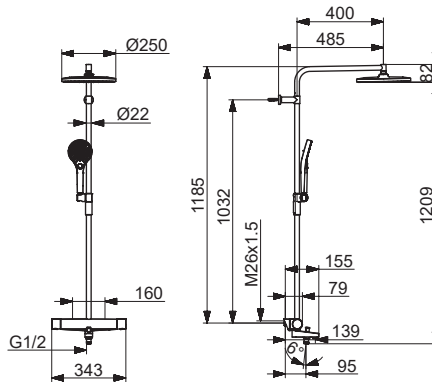
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.32/0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



mpi.oras.com/7193NU

7152N

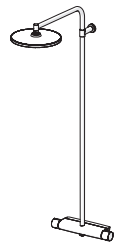
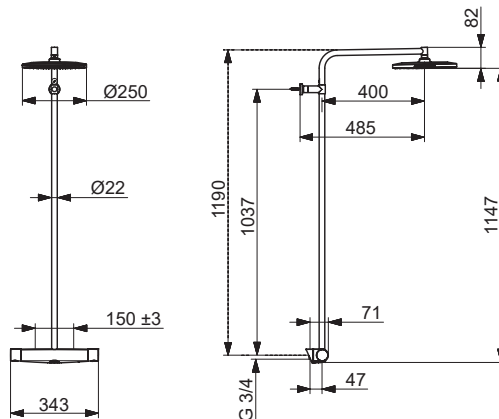
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.32/0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +65°C



mpi.oras.com/7152N

7191N

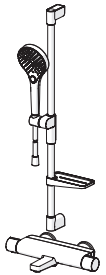
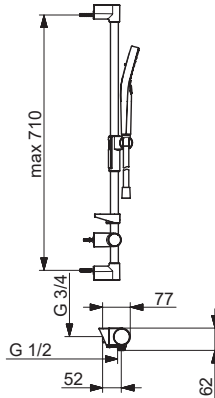
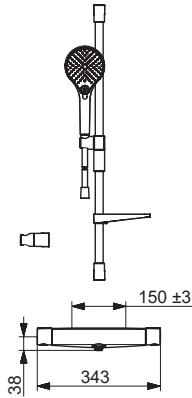
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.12 l/s (Eco)
 0.22 l/s (300 kPa)
 250 kPa (0.2 l/s)
 max. +80°C



mpi.oras.com/7191N

7169-109

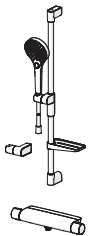
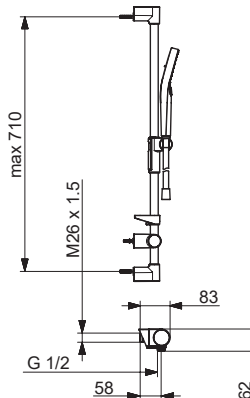
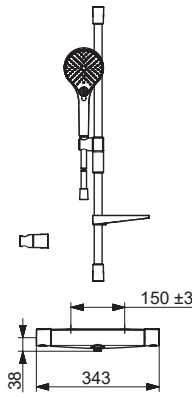
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.15 l/s (300 kPa w/Reducer)
 max. +65°C



mpi.oras.com/7169-109

7158-109

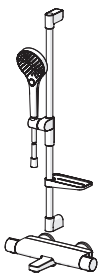
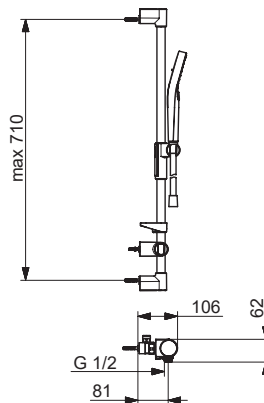
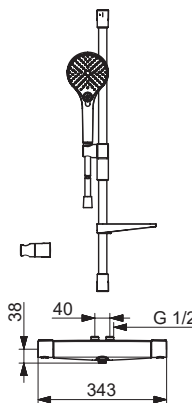
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.13 l/s (300 kPa w/Reducer)
 max. +65°C



mpi.oras.com/7158-109

7159-109

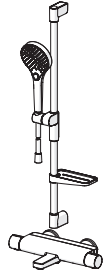
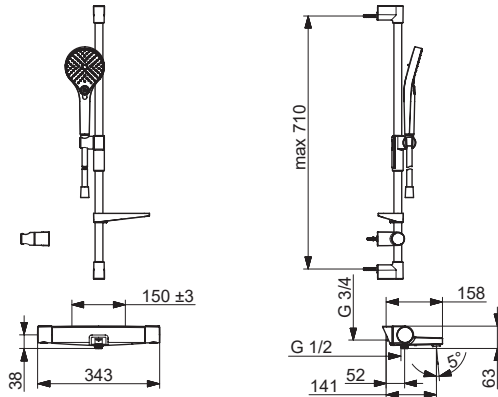
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.15 l/s (300 kPa w/Reducer)
 max. +65°C



mpi.oras.com/7159-109

7149-109

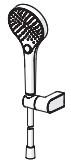
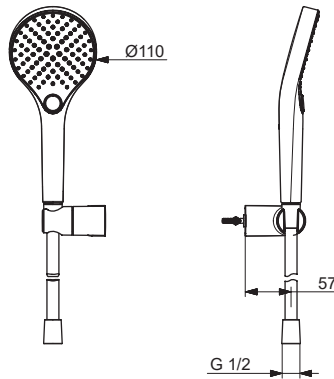
I (ISO 3822)
 EN1111
 100 - 1000 kPa
 0.15 l/s (300 kPa w/Reducer)
 max. +65°C



mpi.oras.com/7149-109

2795N

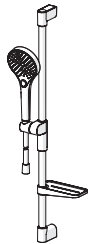
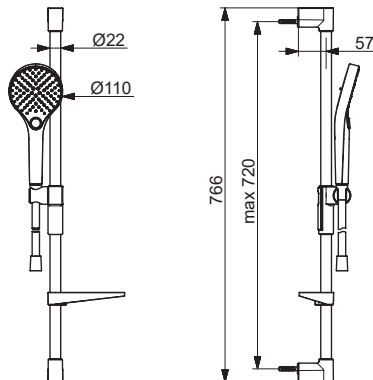
I (ISO 3822)
 EN1112
 50 - 500 kPa
 0.20 l/s (300 kPa w/Reducer)
 max. +65°C



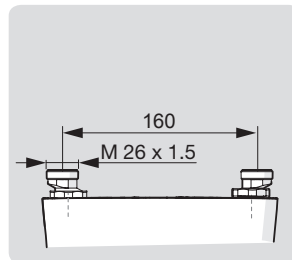
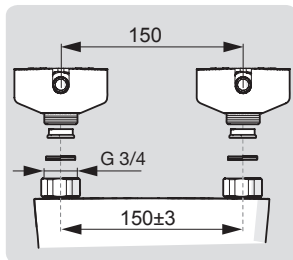
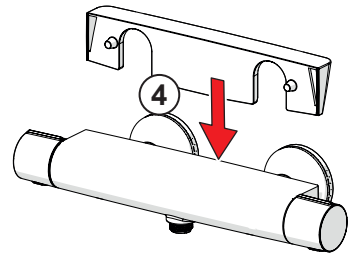
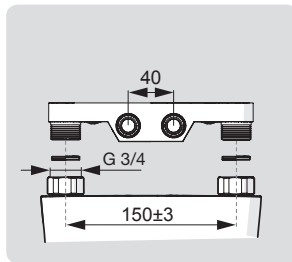
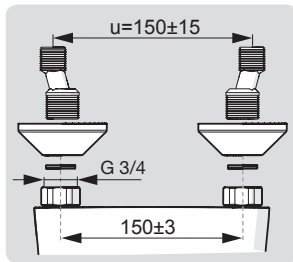
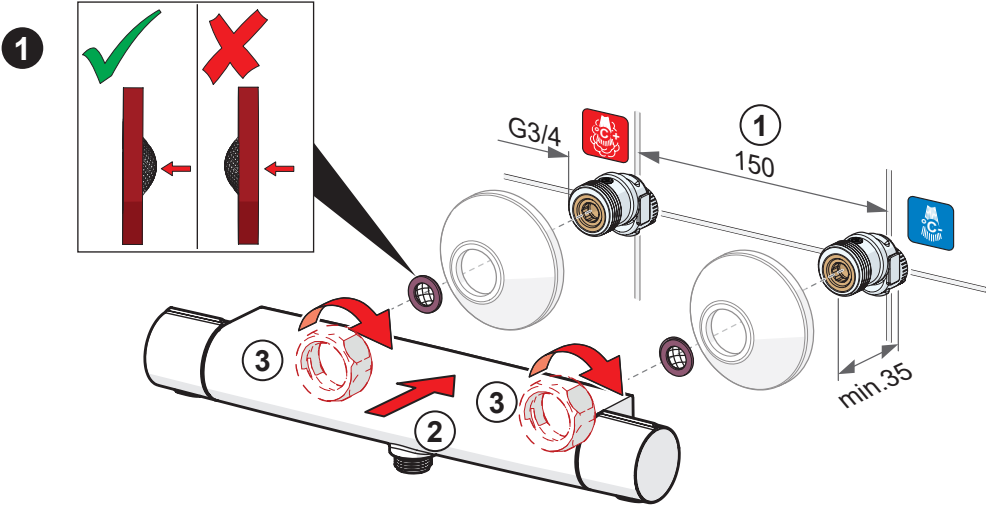
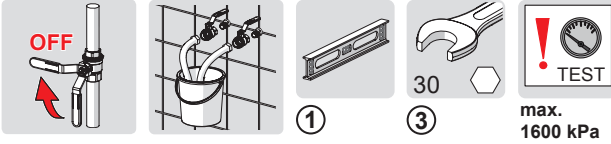
mpi.oras.com/2795N

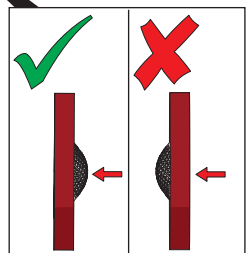
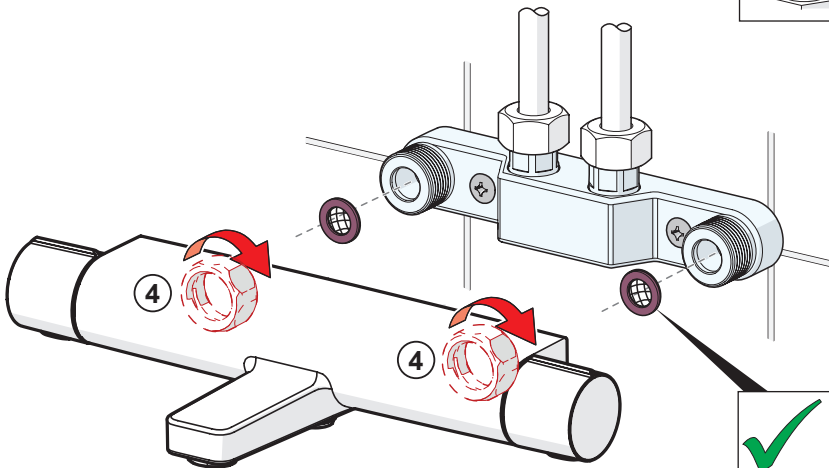
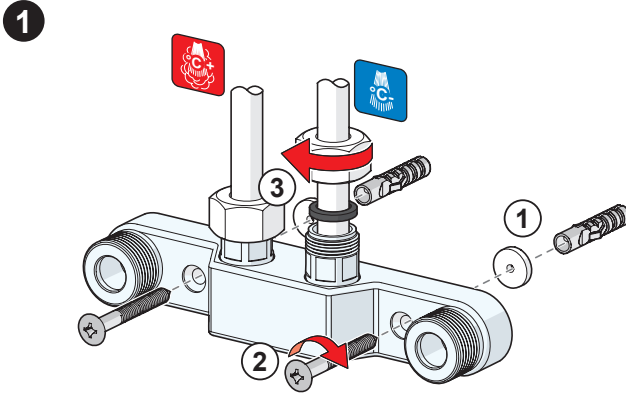
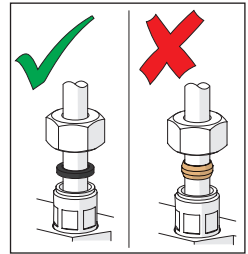
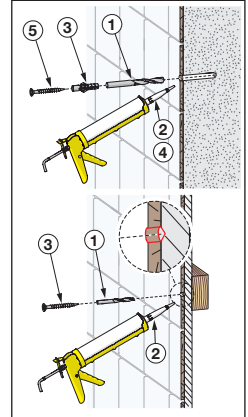
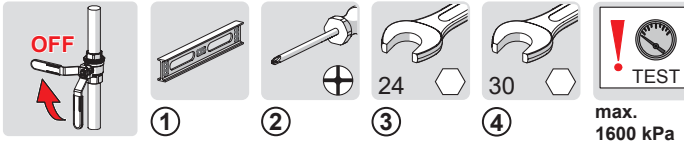
2790N

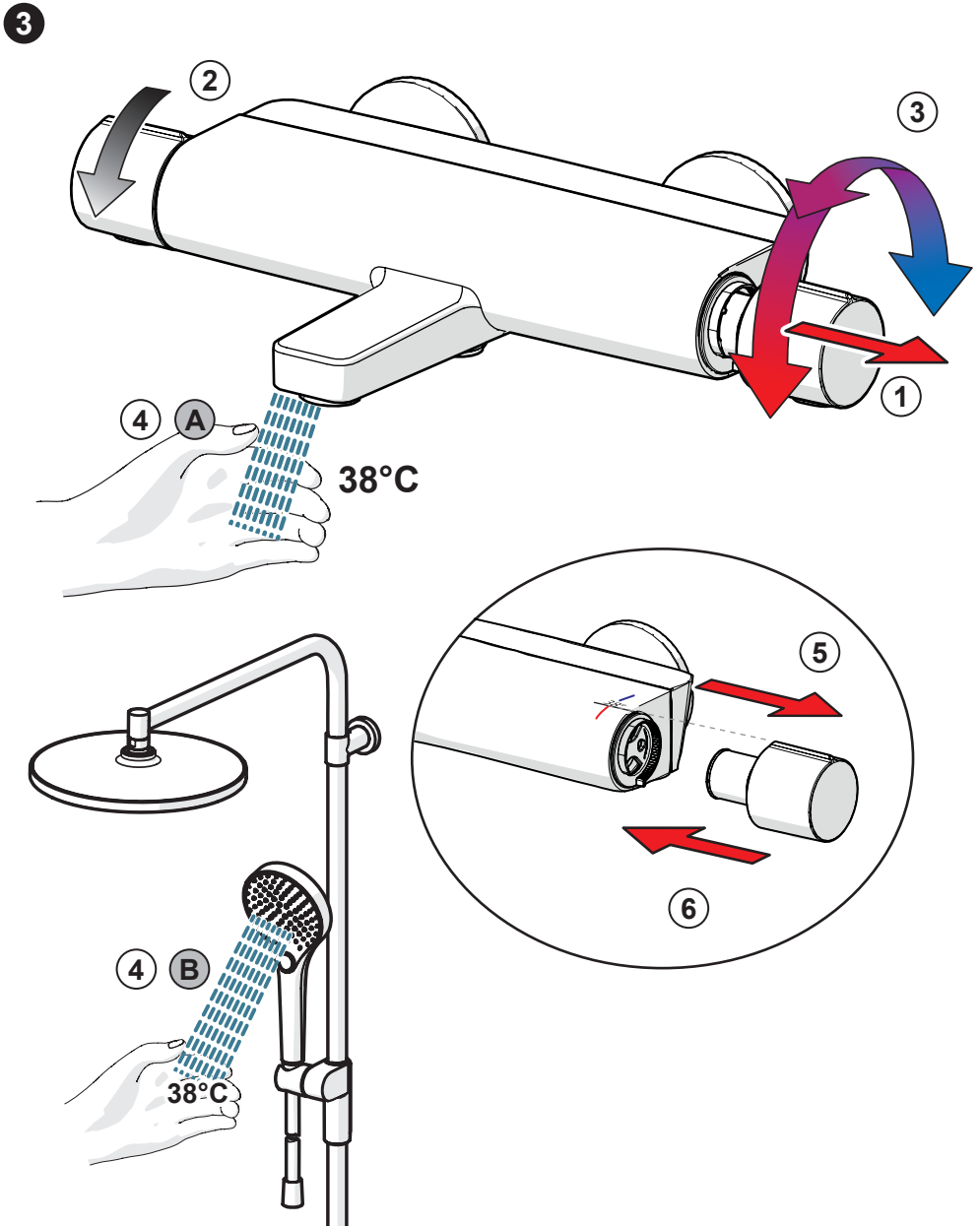
I (ISO 3822)
 EN1112
 50 - 500 kPa
 0.20 l/s (300 kPa w/Reducer)
 max. +65°C

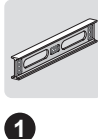
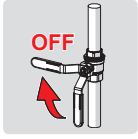


mpi.oras.com/2790N










max.
1600 kPa

1

1

A  5x40 x 2

B  21/3x3 x 2

C  8x40 x 2

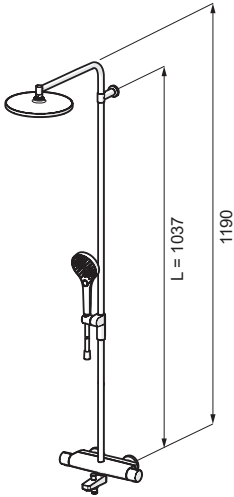
D  M6x6 x 1

E  M6x25 x 1

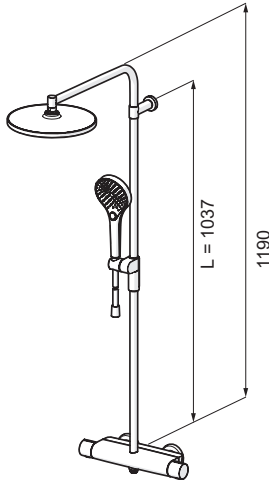
F  M4x4 x 1

G  M5x6 x 1

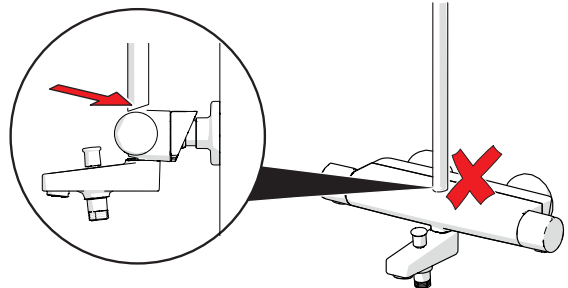
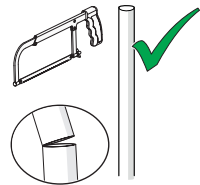
1  L

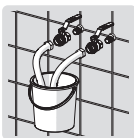
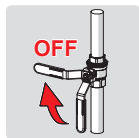


7193N/NU



7192N/NU






1

1

max.
1600 kPa

A  5x40 x 2

B  21/3x3 x 2

C  8x40 x 2

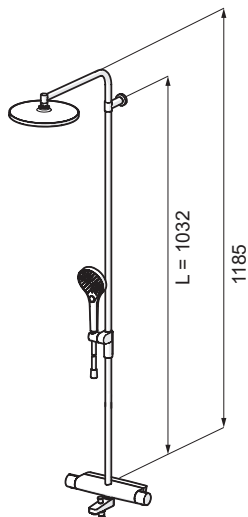
D  M6x6 x 1

E  M6x25 x 1

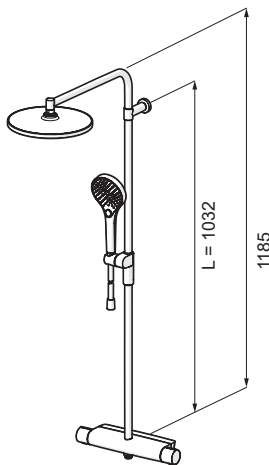
F  M4x4 x 1

G  M5x6 x 1

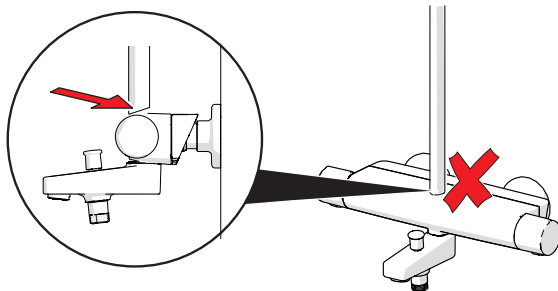
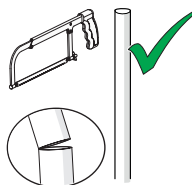
1  L

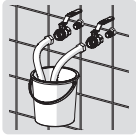
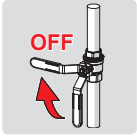


7152N



7156N





max.
1600 kPa

A 5x40 x 2

B 21/3x3 x 2

C 8x40 x 2

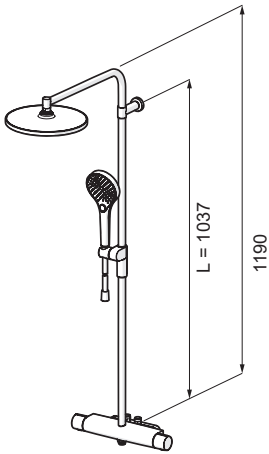
D M6x6 x 1

E M6x25 x 1

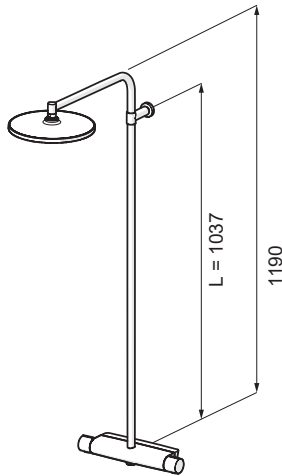
F M4x4 x 1

G M5x6 x 1

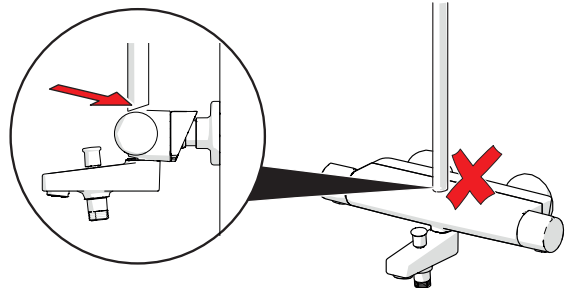
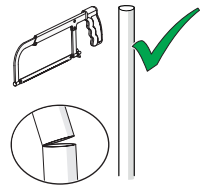
1 L



7157N



7191N





2



2



1

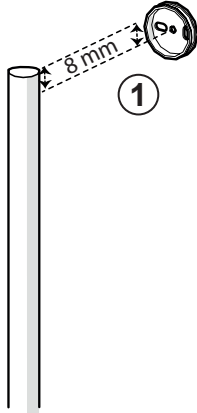


3



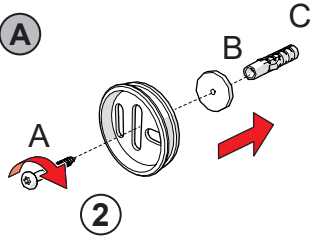
2

2



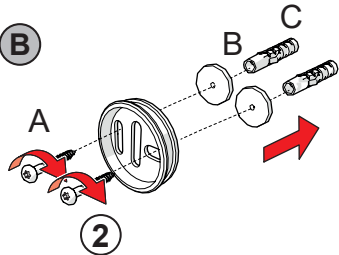
3

A

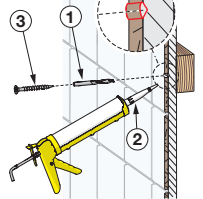
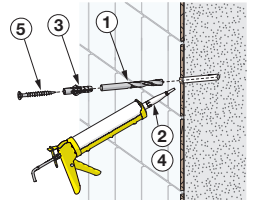
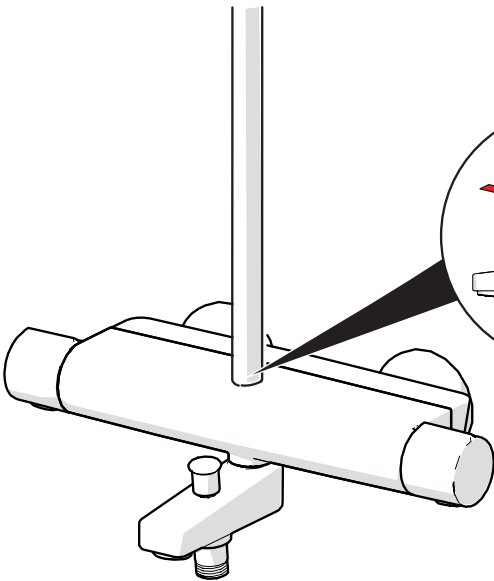


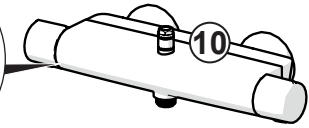
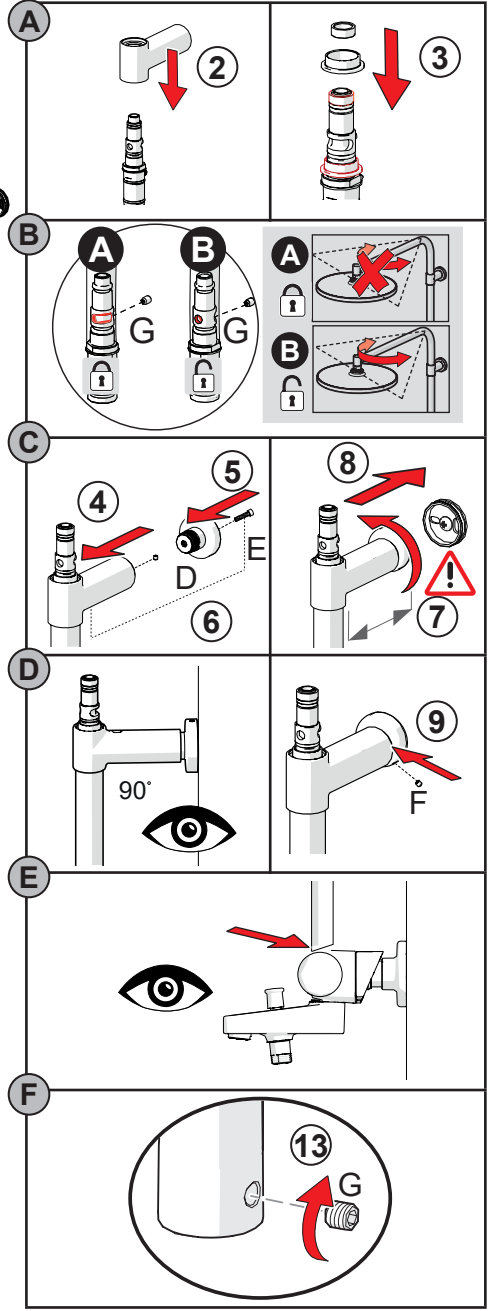
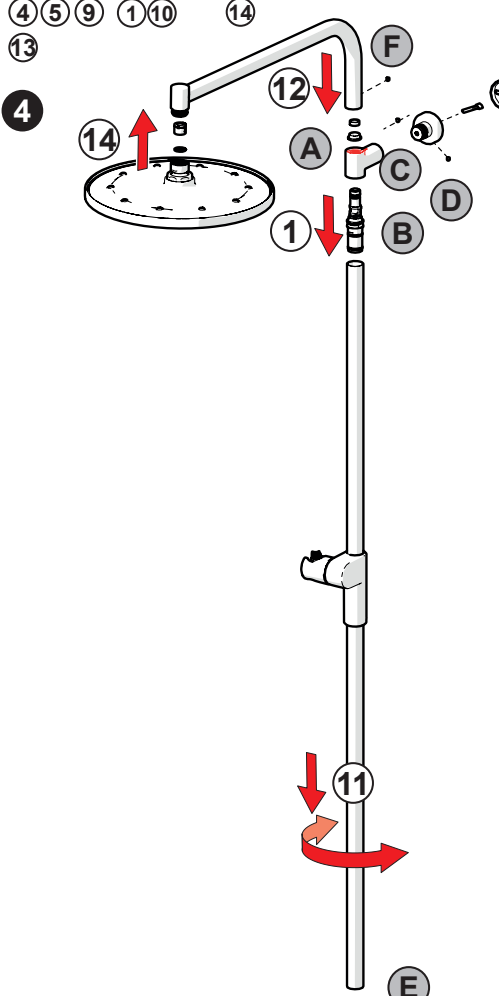
2

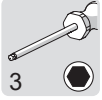
B



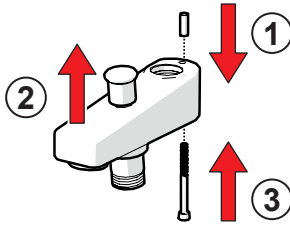
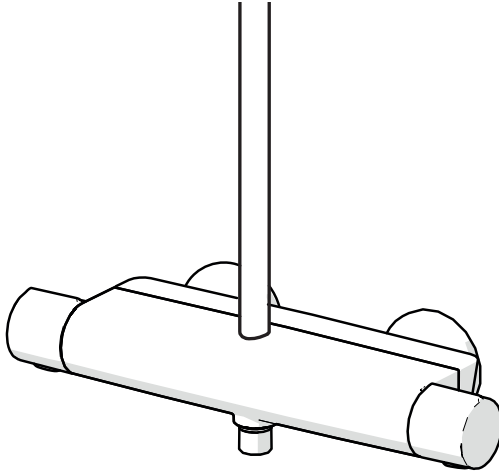
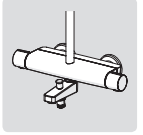
2







3






A  5x40 x 2

B  21/3x3 x 2

C  8x40 x 2

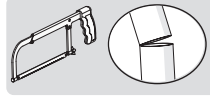
D  4x12 x 2



1



1

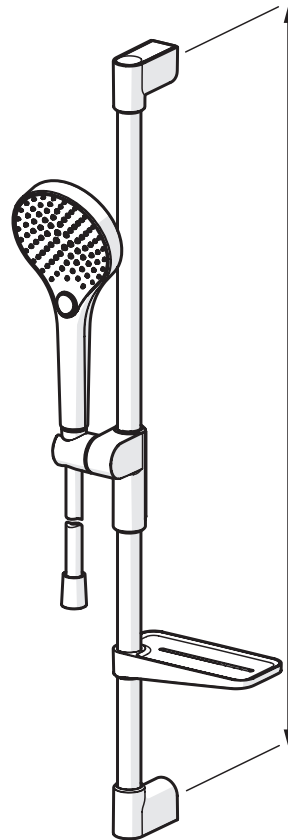


2790N

1



L



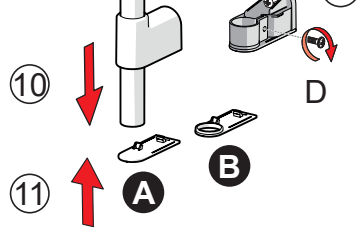
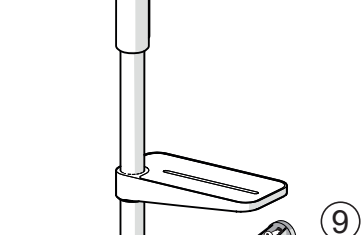
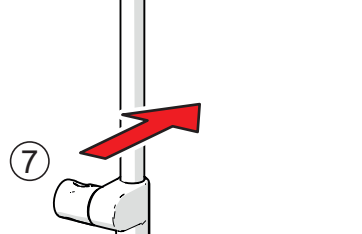
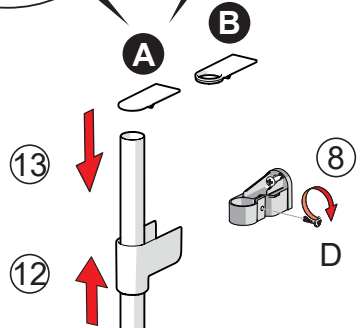
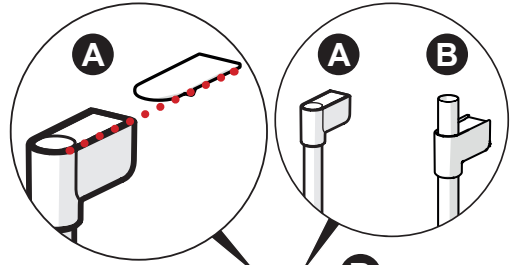
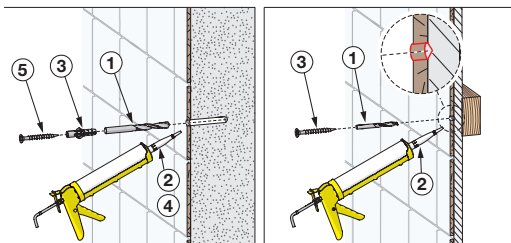
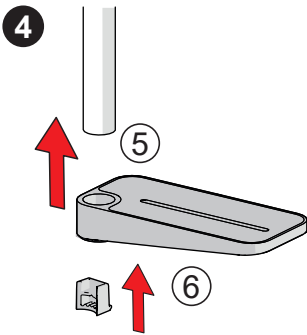
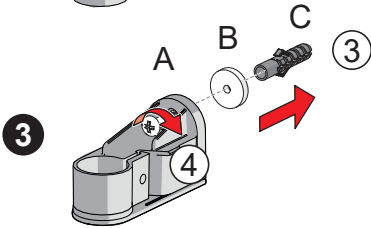
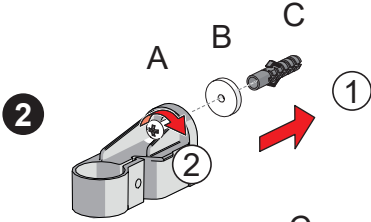
L = max 720



2 3



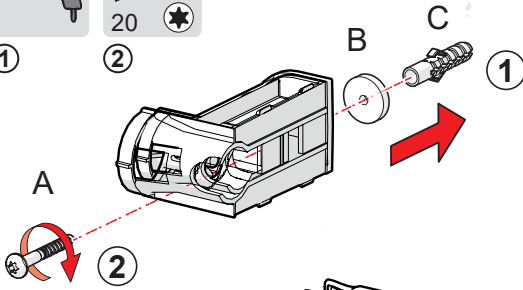
2 8 9





①

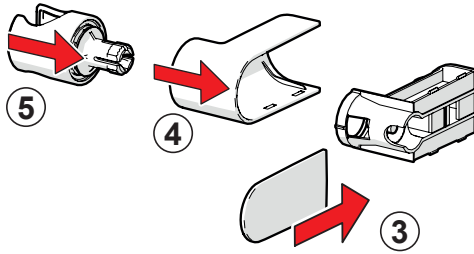
②



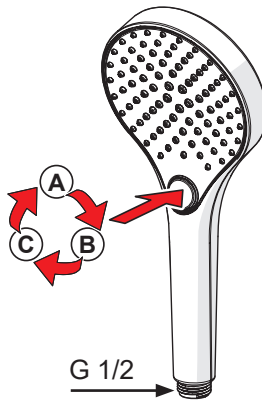
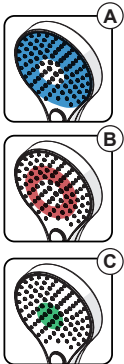
A  4x30 x 1

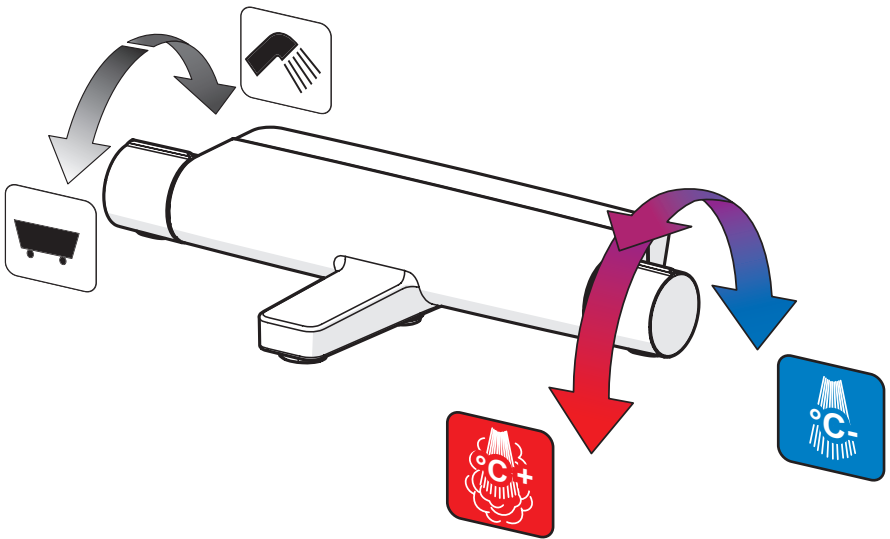
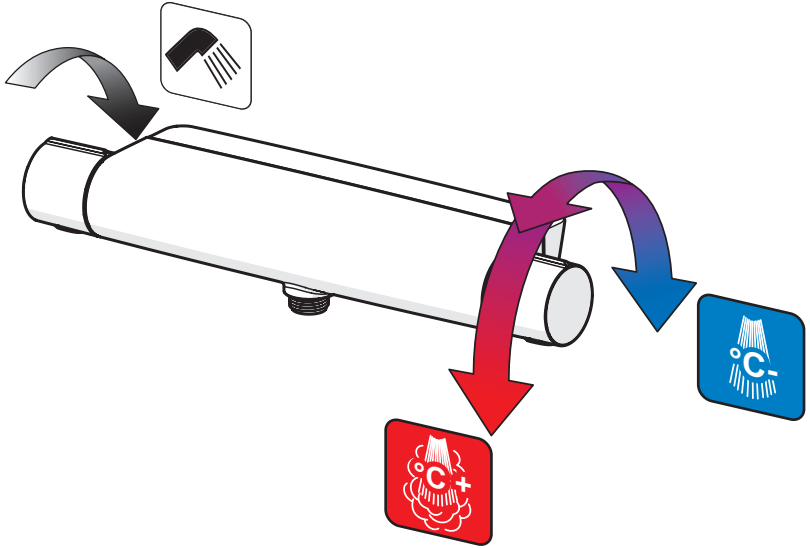
B  15/3x3 x 1

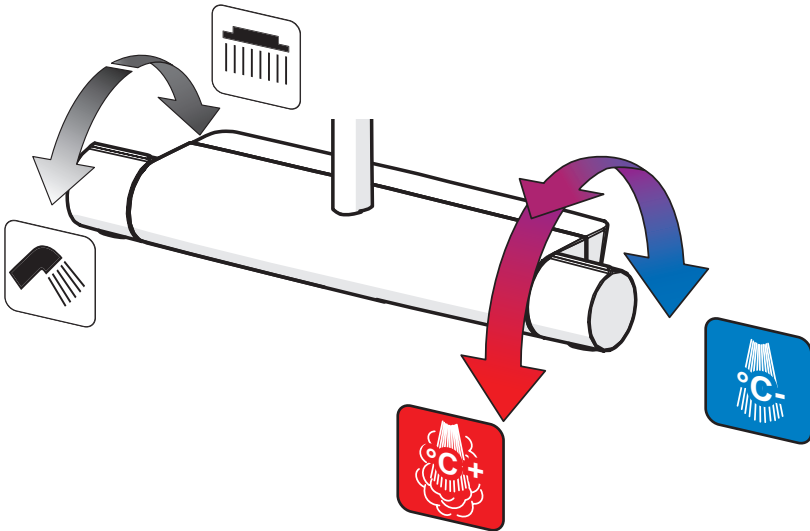
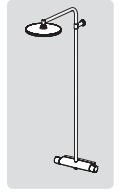
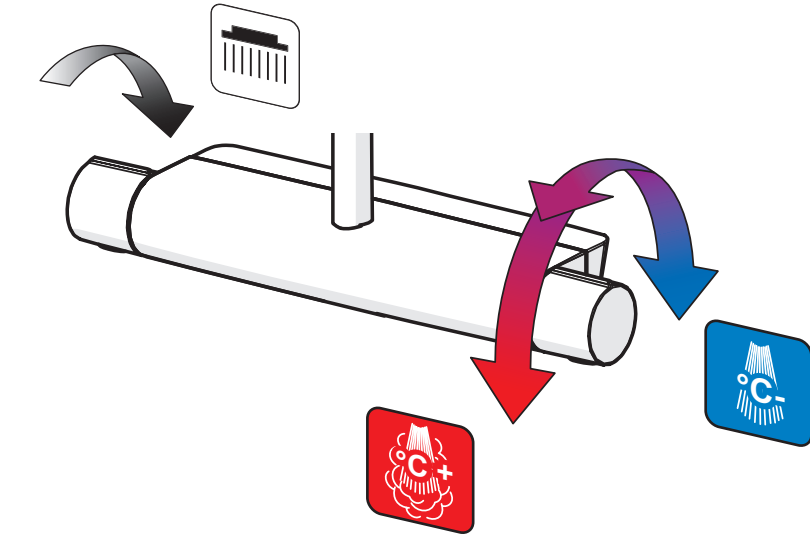
C  6x30 x 1

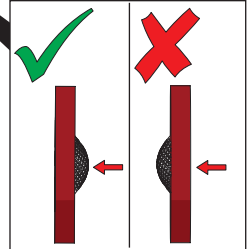
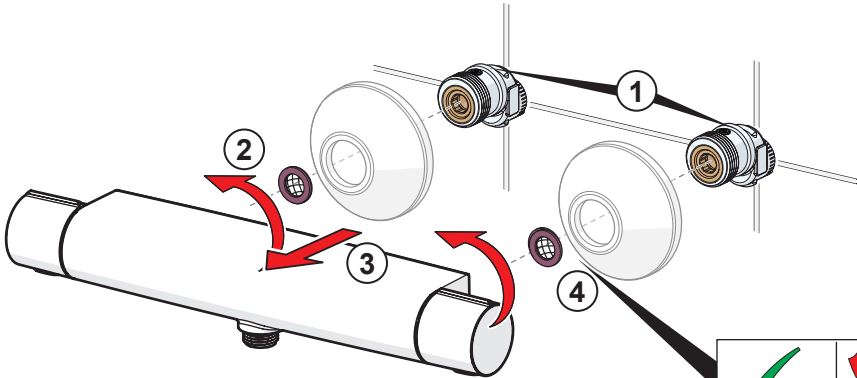
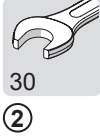
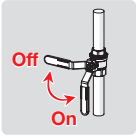
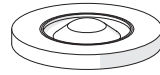


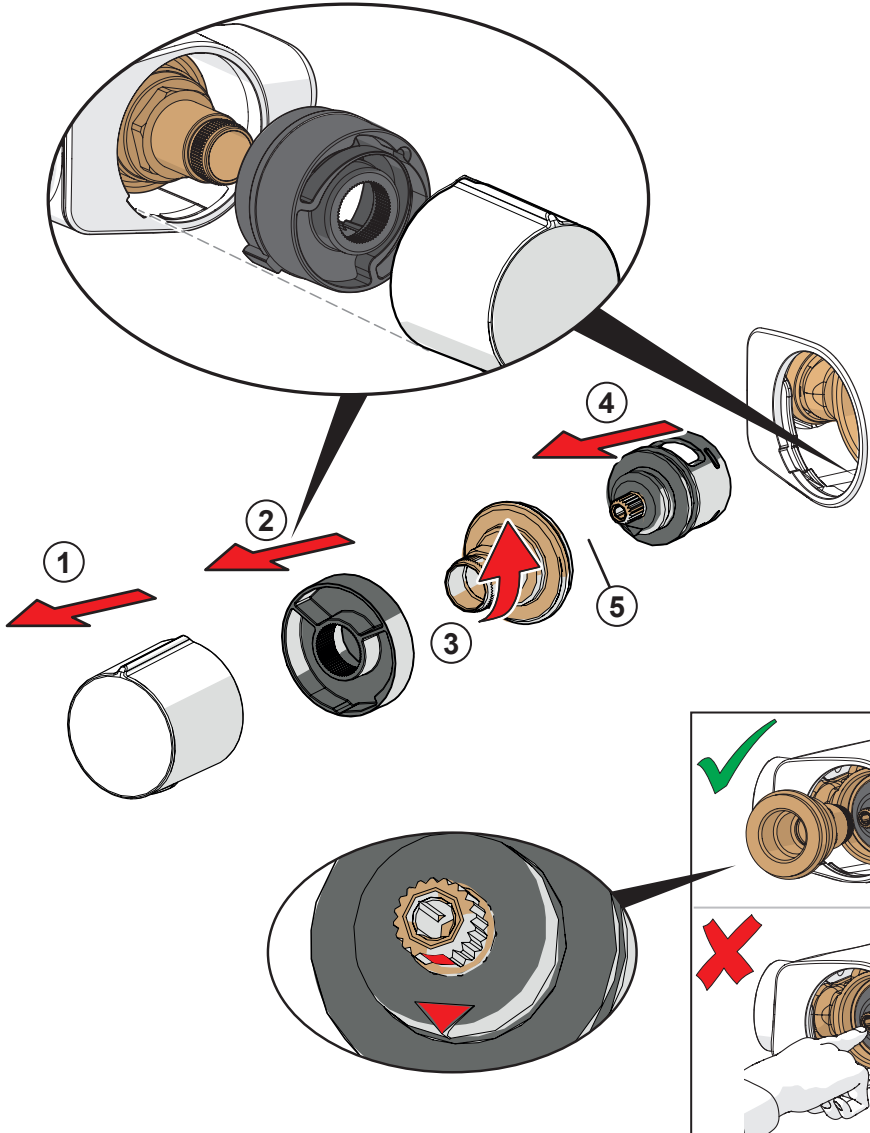
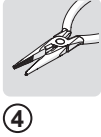
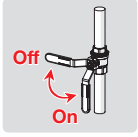
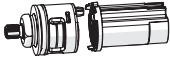
Max 65°C

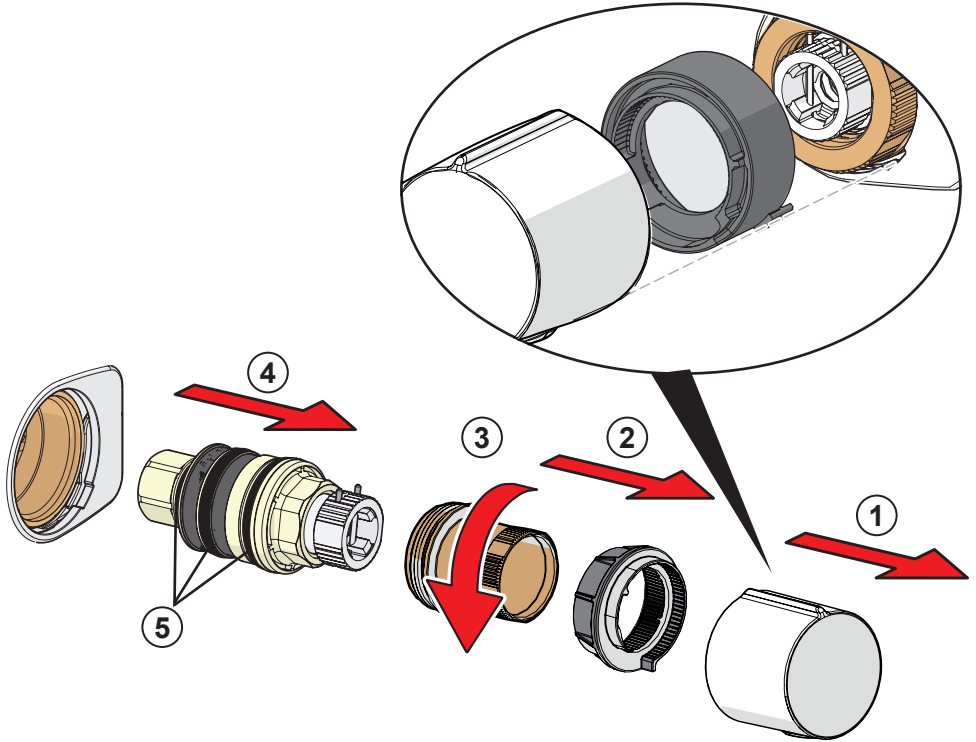
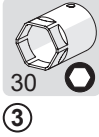
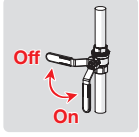






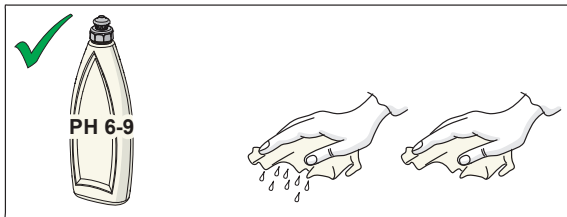
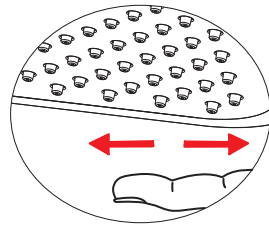
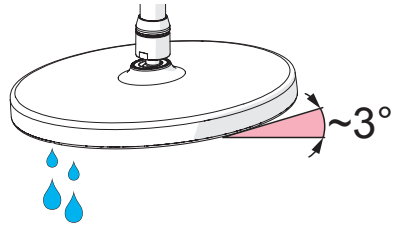
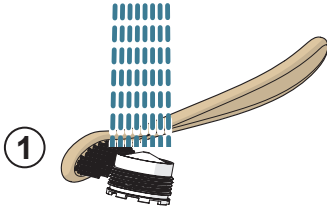








①



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About Oras Group

Oras Group is a significant European provider of sanitary fittings: the market leader in the Nordics and a leading company in Continental Europe.

The company's mission is to create the smartest water experiences for everyone and its vision is to become the Perfect Flow Company.

The Group has two strong brands, Oras and Hansa. Oras Group is owned by Oras Invest, a family company, and an industrial owner.

The domicile of Oras Ltd, the parent company of the Group, is located in Rauma, Finland, and the Group has three manufacturing sites: Kralovice (Czech Republic), Olesno (Poland) and Rauma (Finland).

The Group operates with its own staff in 17 markets. Oras Group's net sales were 233.5 million euros in 2021 and at the end of the period the company employed 1255 people.

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