


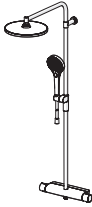




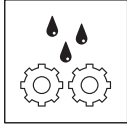





# Oras

Installation and maintenance guide

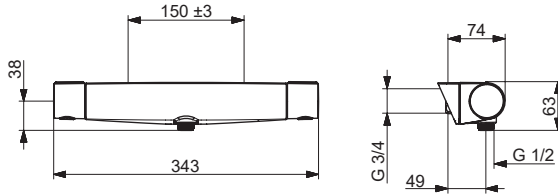


		4-12
		13-15
		16-19
		20-22
		22-24
		25-27
		28



## 7160N

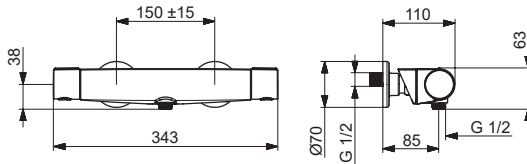
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +80°C



[mpi.oras.com/7160N](http://mpi.oras.com/7160N)

## 7160NU

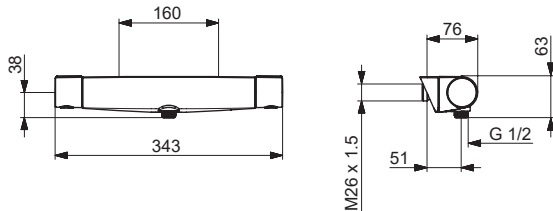
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +80°C



[mpi.oras.com/7160NU](http://mpi.oras.com/7160NU)

## 7150N

EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +80°C

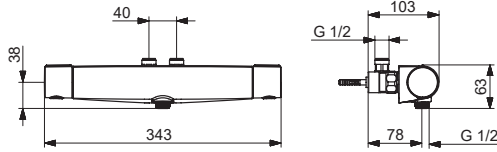


[mpi.oras.com/7150N](http://mpi.oras.com/7150N)



## 7151N

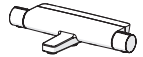
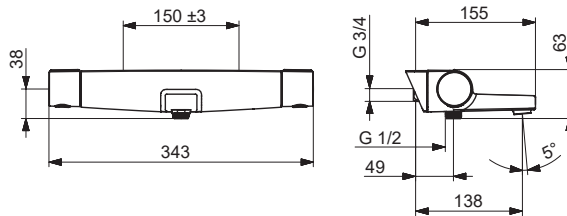
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +80°C



[mpi.oras.com/7151N](http://mpi.oras.com/7151N)

## 7140N

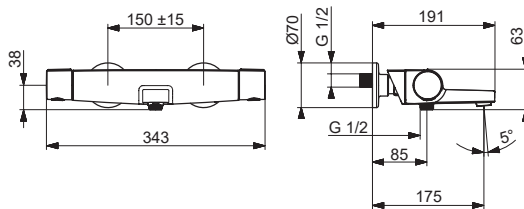
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.32/0.22 l/s (300 kPa)  
265 kPa (0.3 l/s)  
max. +80°C



[mpi.oras.com/7140N](http://mpi.oras.com/7140N)

## 7140NU

EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.32/0.22 l/s (300 kPa)  
265 kPa (0.3 l/s)  
max. +80°C

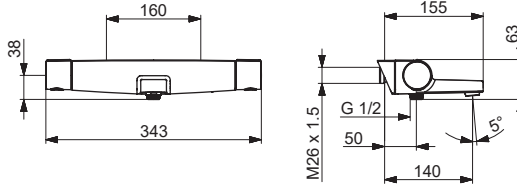


[mpi.oras.com/7140NU](http://mpi.oras.com/7140NU)



## 7154N

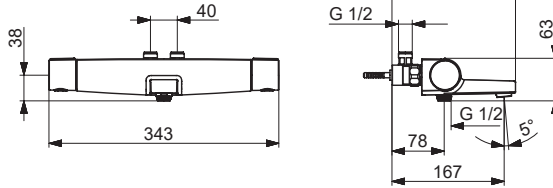
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.32/0.22 l/s (300 kPa)  
265 kPa (0.3 l/s)  
max. +80°C



[mpi.oras.com/7154N](http://mpi.oras.com/7154N)

## 7155N

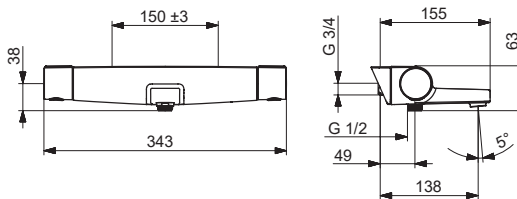
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.32/0.22 l/s (300 kPa)  
265 kPa (0.3 l/s)  
max. +80°C



[mpi.oras.com/7155N](http://mpi.oras.com/7155N)

## 7140GN

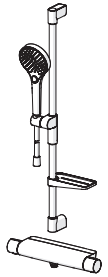
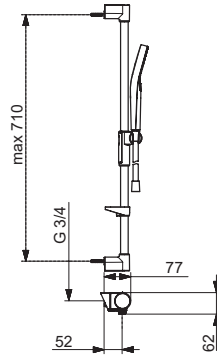
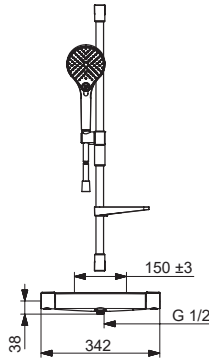
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22/0.22 l/s (300 kPa)  
250 kPa (0.2 l/s)  
max. +80°C



[mpi.oras.com/7140GN](http://mpi.oras.com/7140GN)

## 7169N

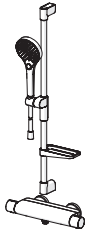
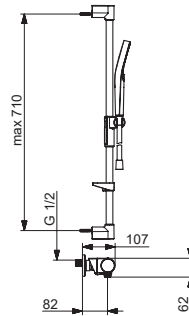
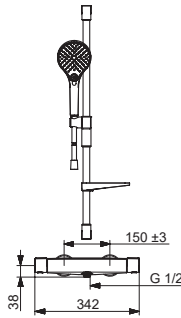
EN 1111  
 I (ISO 3822)  
 100 - 1000 kPa  
 0.22 l/s (300 kPa)  
 0.12 l/s (300 kPa) Eco  
 250 kPa (0.2 l/s)  
 max. +65°C



[mpi.oras.com/7169N](http://mpi.oras.com/7169N)

## 7169NU

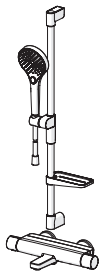
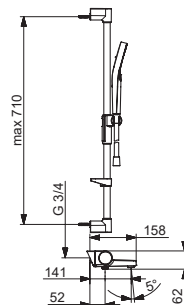
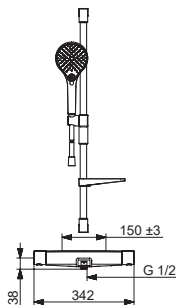
EN 1111  
 I (ISO 3822)  
 100 - 1000 kPa  
 0.22 l/s (300 kPa)  
 0.12 l/s (300 kPa) Eco  
 250 kPa (0.2 l/s)  
 max. +65°C



[mpi.oras.com/7169NU](http://mpi.oras.com/7169NU)

## 7149N

EN 1111  
 I (ISO 3822)  
 100 - 1000 kPa  
 0.22 l/s (300 kPa)  
 0.12 l/s (300 kPa) Eco  
 250 kPa (0.2 l/s)  
 max. +65°C

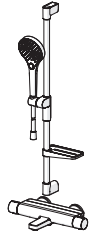
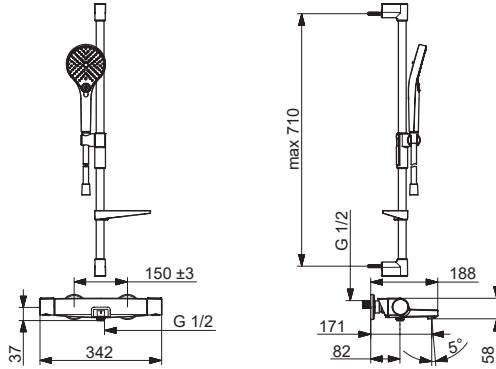


[mpi.oras.com/7149N](http://mpi.oras.com/7149N)



## 7149NU

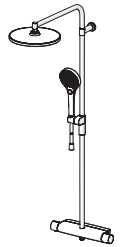
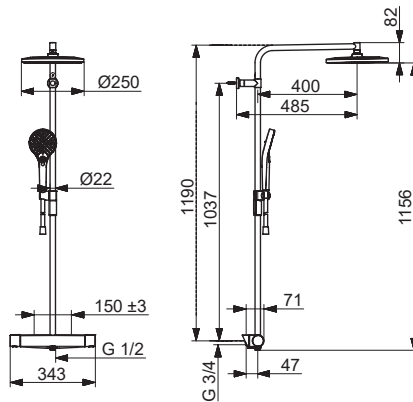
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +65°C



[mpi.oras.com/7149NU](http://mpi.oras.com/7149NU)

## 7192N

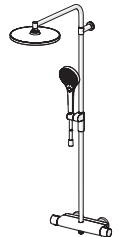
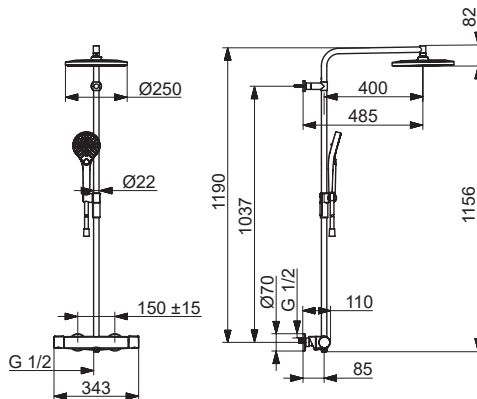
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +65°C



[mpi.oras.com/7192N](http://mpi.oras.com/7192N)

## 7192NU

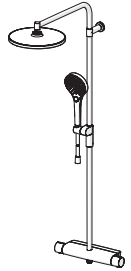
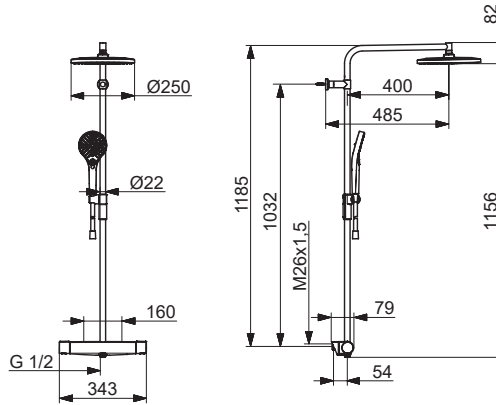
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +65°C



[mpi.oras.com/7192NU](http://mpi.oras.com/7192NU)

## 7156N

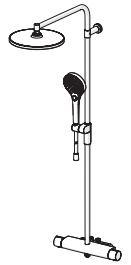
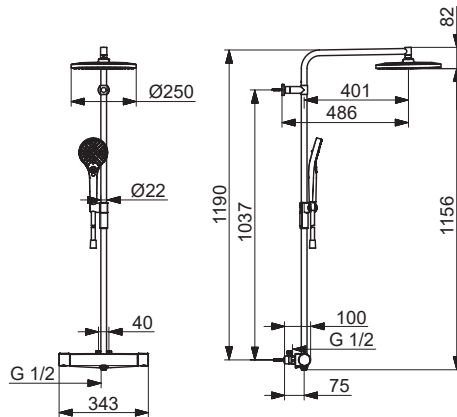
EN 1111  
 I (ISO 3822)  
 100 - 1000 kPa  
 0.22 l/s (300 kPa)  
 0.12 l/s (300 kPa) Eco  
 250 kPa (0.2 l/s)  
 max. +65°C



[mpi.oras.com/7156N](http://mpi.oras.com/7156N)

## 7157N

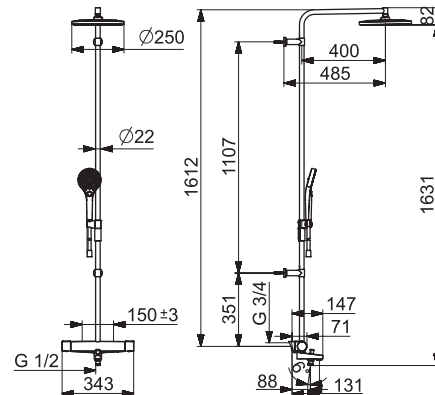
EN 1111  
 I (ISO 3822)  
 100 - 1000 kPa  
 0.22 l/s (300 kPa)  
 0.12 l/s (300 kPa) Eco  
 250 kPa (0.2 l/s)  
 max. +65°C



[mpi.oras.com/7157N](http://mpi.oras.com/7157N)

## 7193N

EN 1111  
 I (ISO 3822)  
 100 - 1000 kPa  
 0.32/0.22 l/s (300 kPa)  
 0.12 l/s (300 kPa) Eco  
 250 kPa (0.2 l/s)  
 max. +65°C

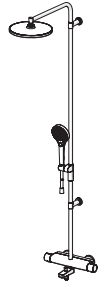
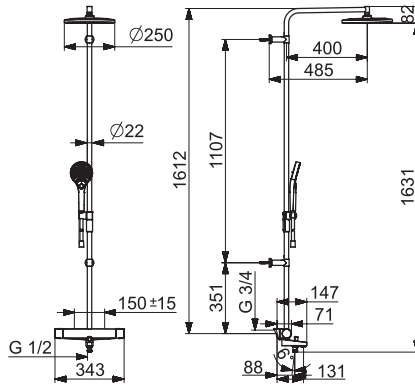


[mpi.oras.com/7193N](http://mpi.oras.com/7193N)



## 7193NU

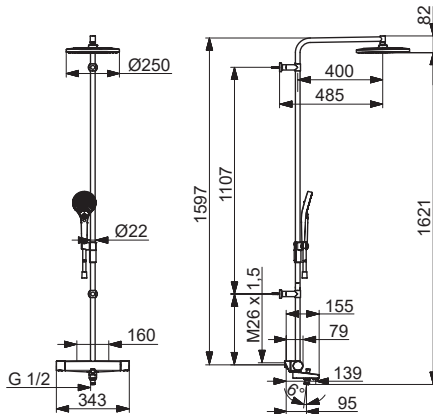
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.32/0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +65°C



[mpi.oras.com/7193NU](http://mpi.oras.com/7193NU)

## 7152N

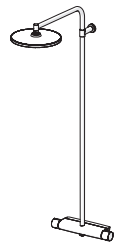
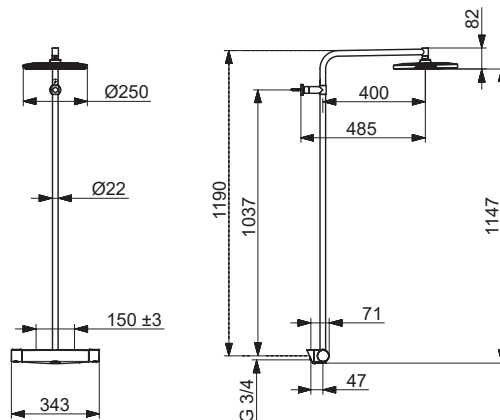
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.32/0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +65°C



[mpi.oras.com/7152N](http://mpi.oras.com/7152N)

## 7191N

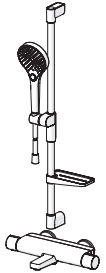
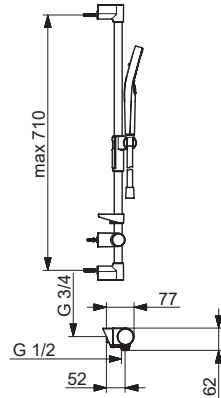
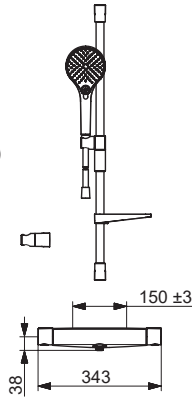
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.22 l/s (300 kPa)  
0.12 l/s (300 kPa) Eco  
250 kPa (0.2 l/s)  
max. +80°C



[mpi.oras.com/7191N](http://mpi.oras.com/7191N)

## 7169-109

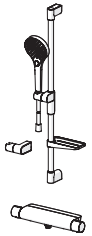
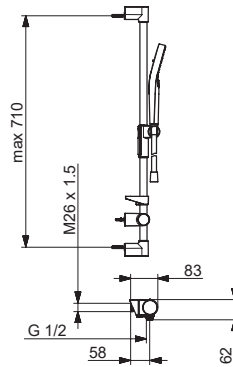
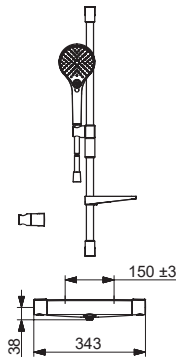
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.15 l/s (300 kPa w flow reducers)  
max. +65°C



[mpi.oras.com/7169-109](http://mpi.oras.com/7169-109)

## 7158-109

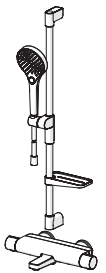
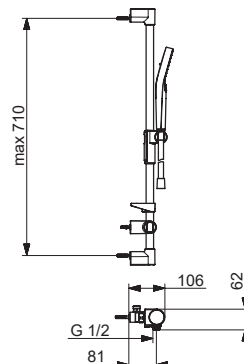
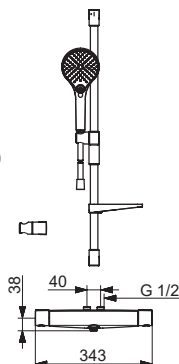
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.13 l/s (300 kPa w flow reducers)  
max. +65°C



[mpi.oras.com/7158-109](http://mpi.oras.com/7158-109)

## 7159-109

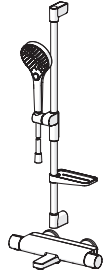
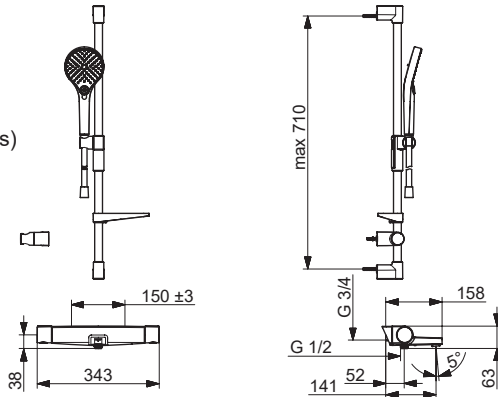
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.15 l/s (300 kPa w flow reducers)  
max. +65°C



[mpi.oras.com/7159-109](http://mpi.oras.com/7159-109)

## 7149-109

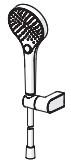
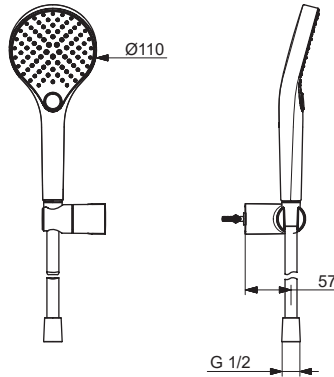
EN 1111  
I (ISO 3822)  
100 - 1000 kPa  
0.15 l/s (300 kPa w flow reducers)  
max. +65°C



[mpi.oras.com/7149-109](http://mpi.oras.com/7149-109)

## 2795N

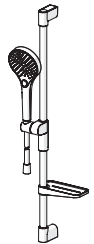
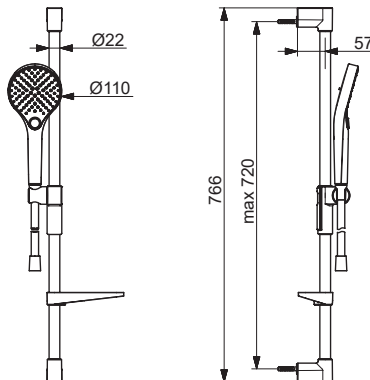
EN 1112  
I (ISO 3822)  
50 - 500 kPa  
0.12 l/s (300 kPa) Eco  
max. +65°C



[mpi.oras.com/2795N](http://mpi.oras.com/2795N)

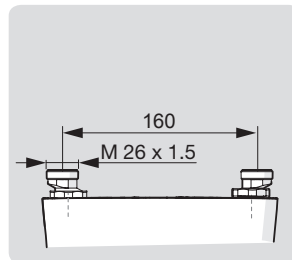
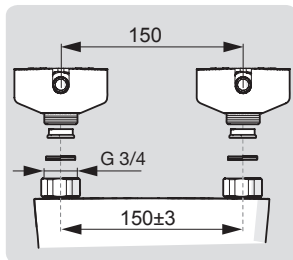
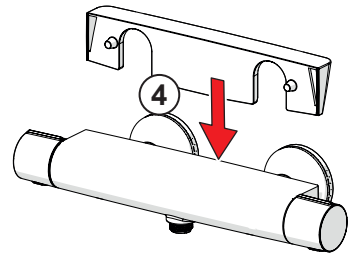
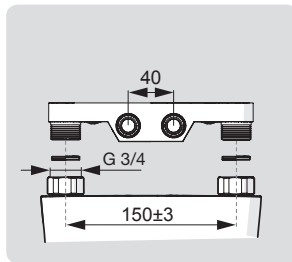
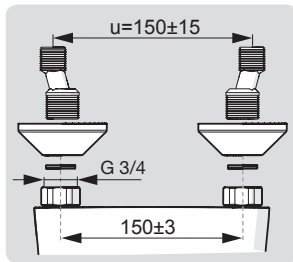
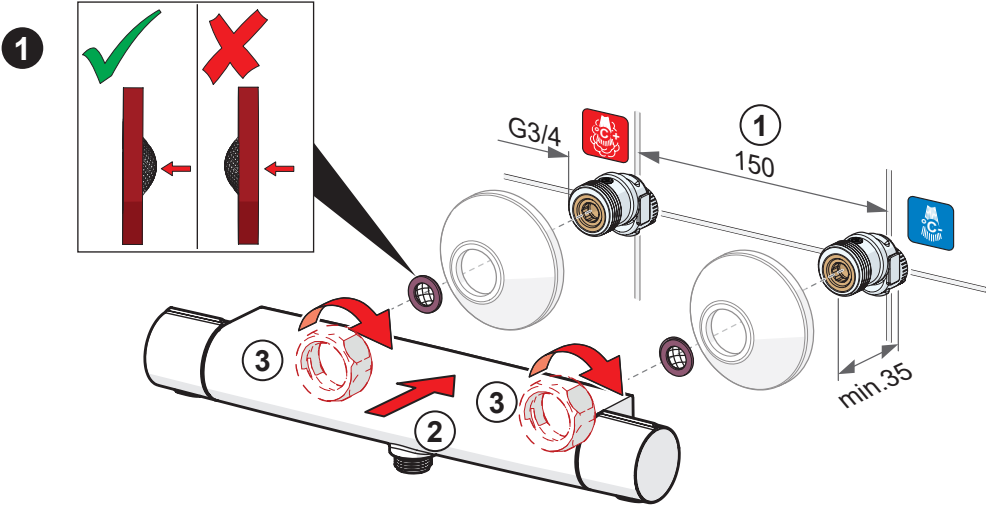
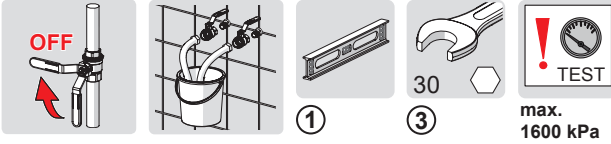
## 2790N

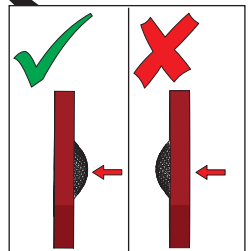
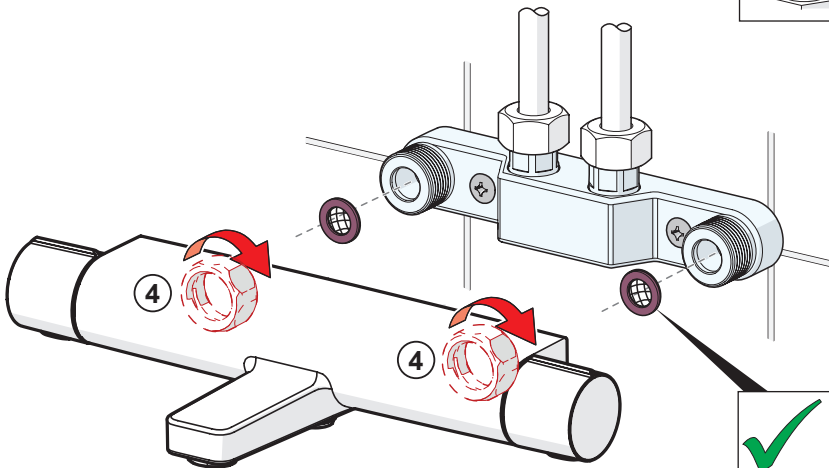
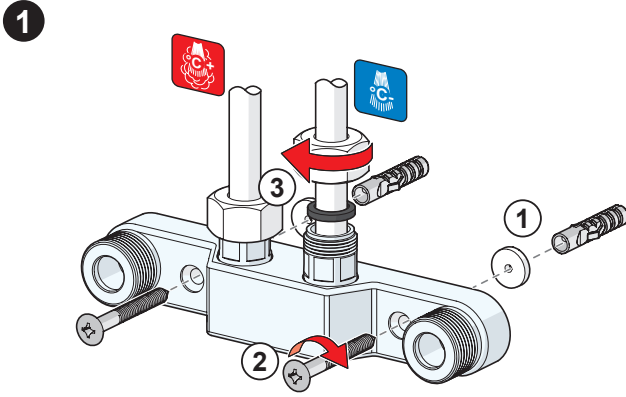
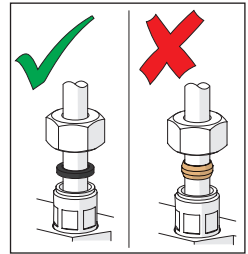
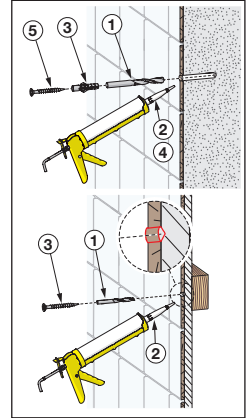
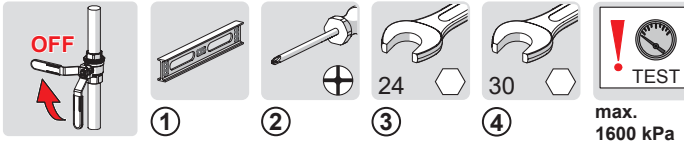
EN 1112  
I (ISO 3822)  
50 - 500 kPa  
0.12 l/s (300 kPa) Eco  
max. +65°C



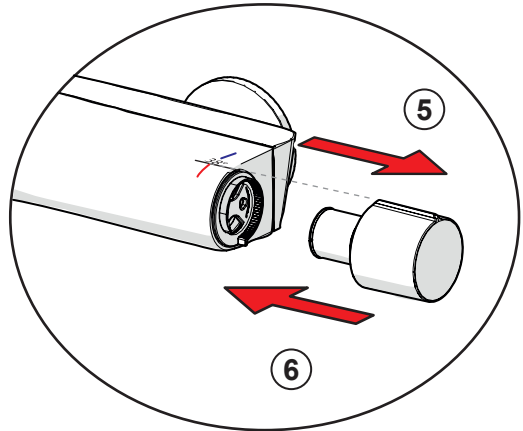
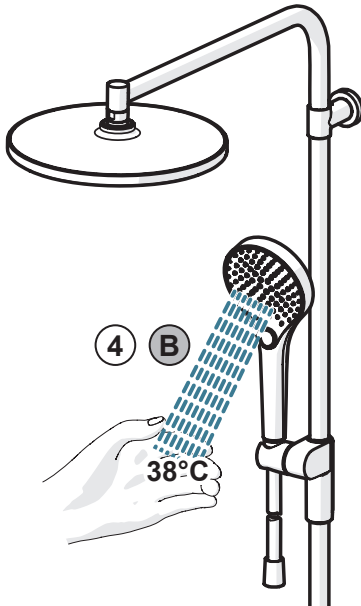
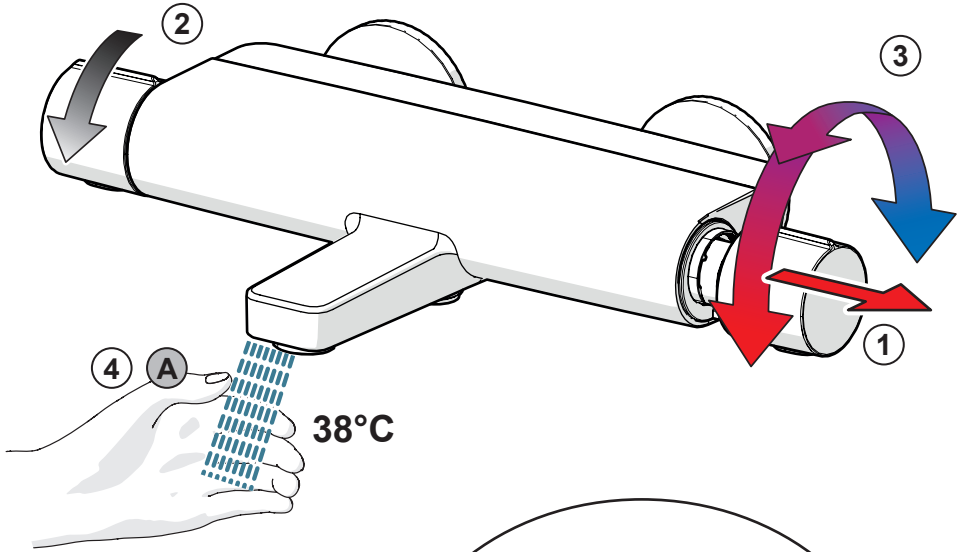
[mpi.oras.com/2790N](http://mpi.oras.com/2790N)

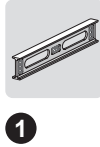
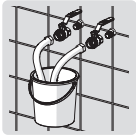






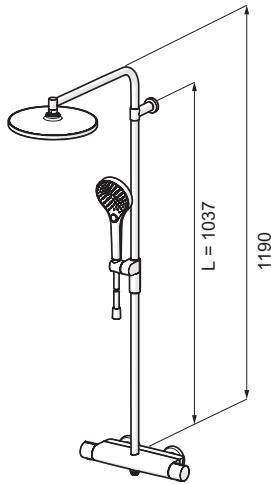
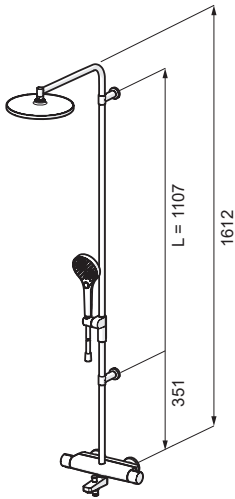
3





max.  
1600 kPa

1 L



(A) (B)

A 5x40 x 2 x 1

B 21/3x3 x 2 x 1

C 8x40 x 2 x 1

D M6x25 x 2 x 1

E M4x4 x 2 x 1

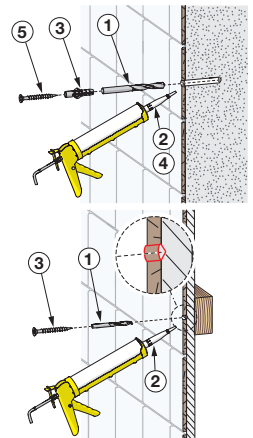
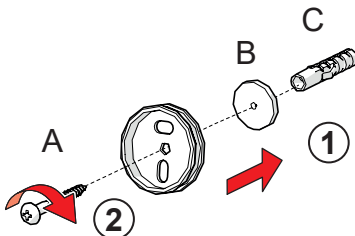
F M5x6 x 2 x 1

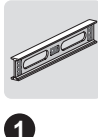
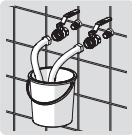
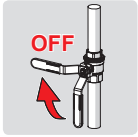
(A) 7193N/NU

(B) 7192N/NU

2 x 2 7193N/NU

L





1

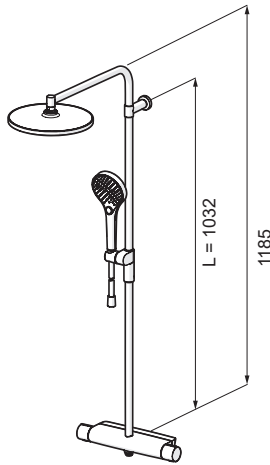
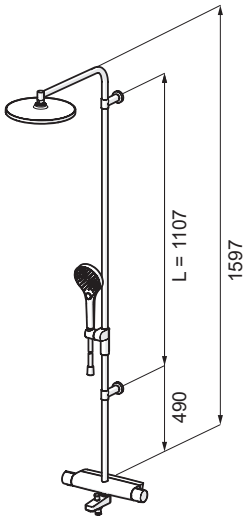
1

2

2

max.  
1600 kPa

1 L



(C) (D)

A 5x40 x 2 x 1

B 21/3x3 x 2 x 1

C 8x40 x 2 x 1

D M6x25 x 2 x 1

E M4x4 x 2 x 1

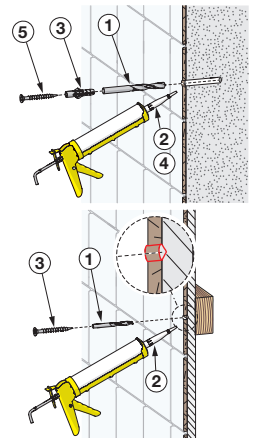
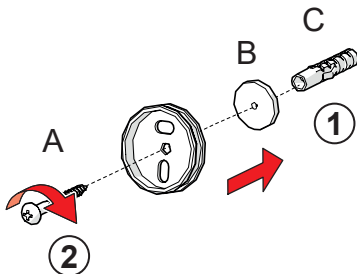
F M5x6 x 2 x 1

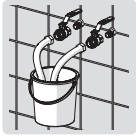
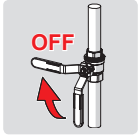
(C) 7152N

(D) 7156N

2 x 2 7152N

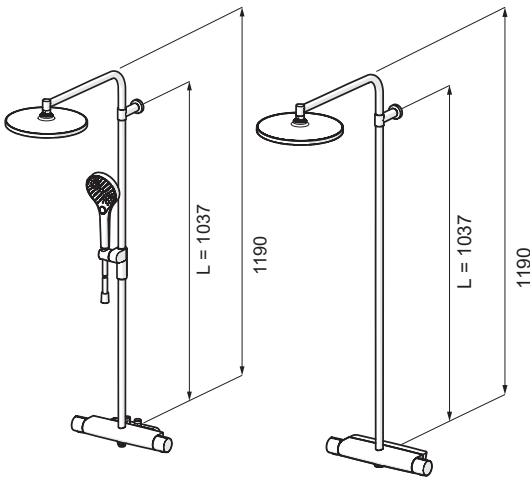
L





max.  
1600 kPa

1 L



A 5x40 x 1

B 21/3x3 x 1

C 8x40 x 1

D M6x25 x 1

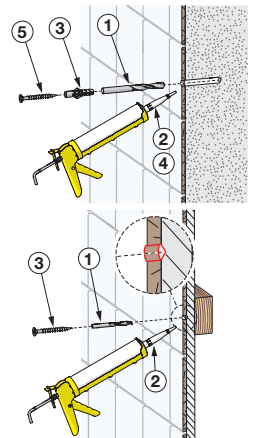
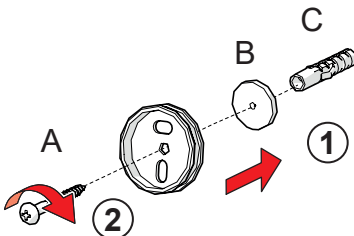
E M4x4 x 1

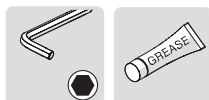
F M5x6 x 1

E 7157N

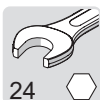
F 7191N

2 L



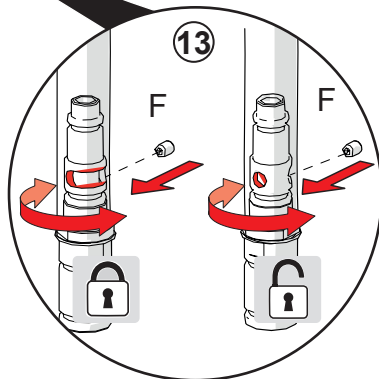
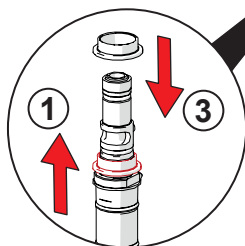
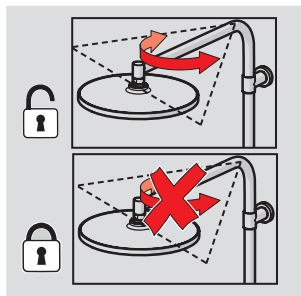
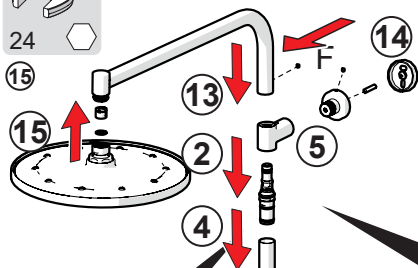


6 9 13 10 11

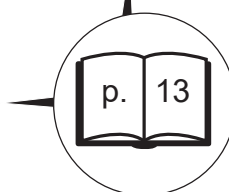
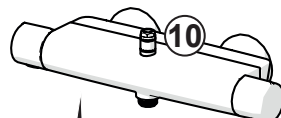
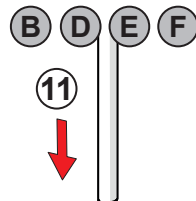
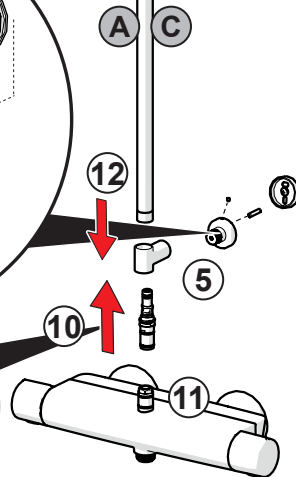
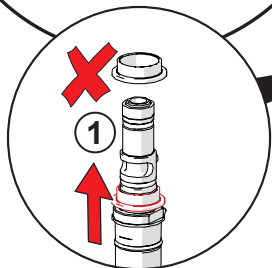
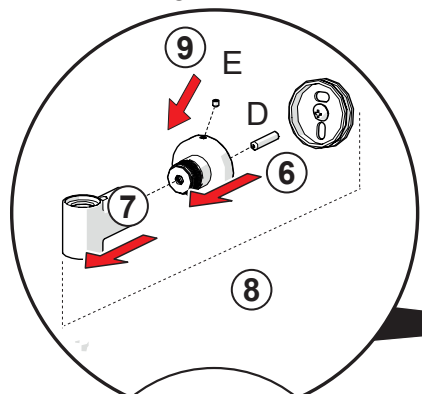


24 15

3



5 X 2 7193N/NU  
7152N



p. 13



A  5x40 x 2

B  21/3x3 x 2

C  8x40 x 2

D  4.0x12 x 2



1

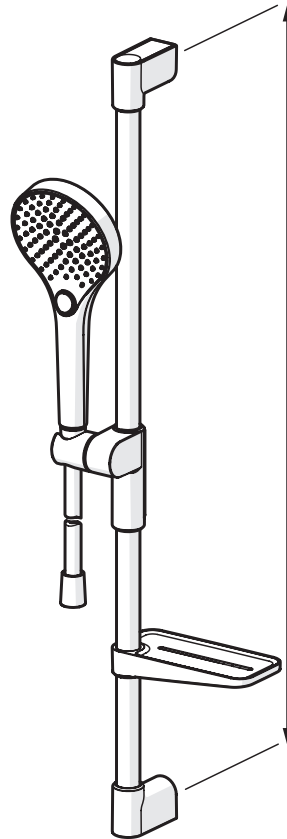
1

2790N

1



L



L = max 720







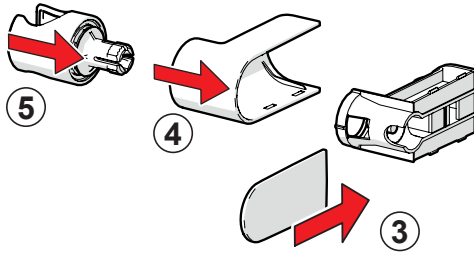
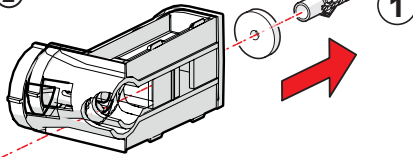
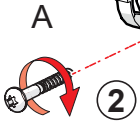
①

②

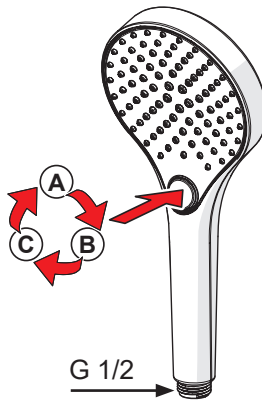
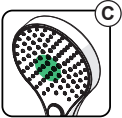
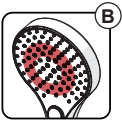
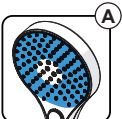
A  5x40 x 1

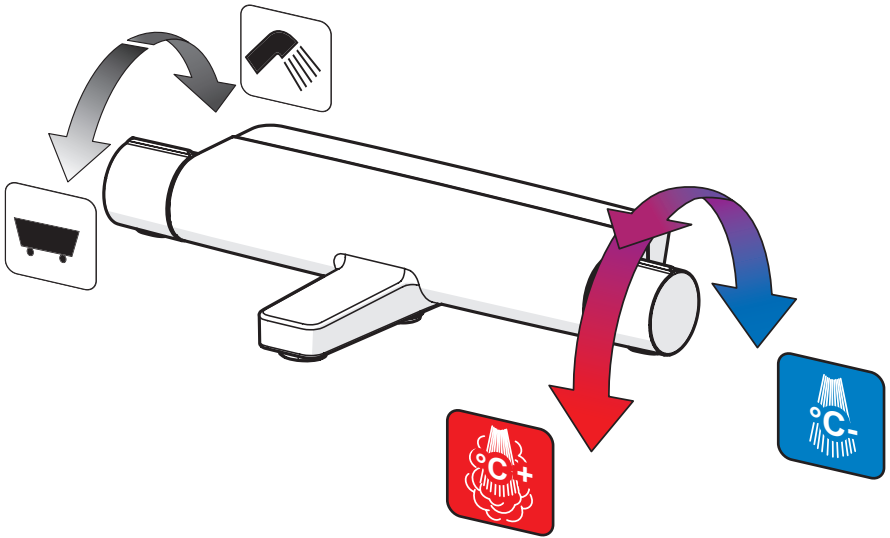
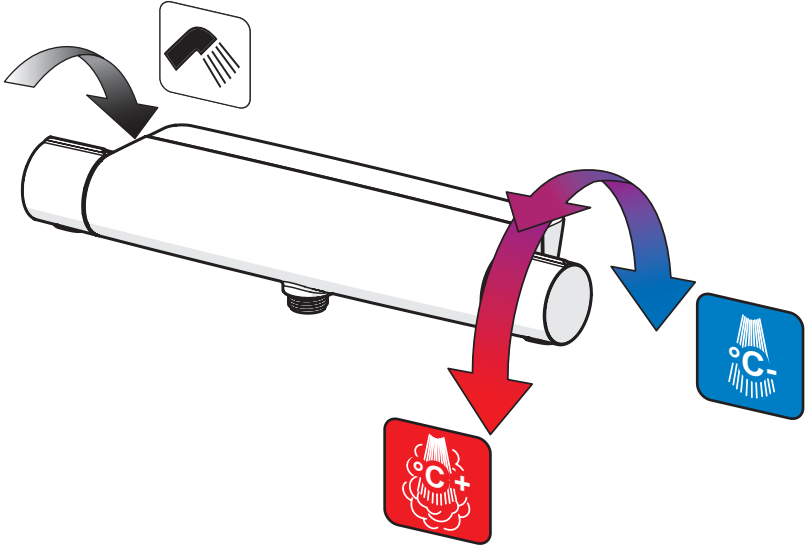
B  21/3x3 x 1

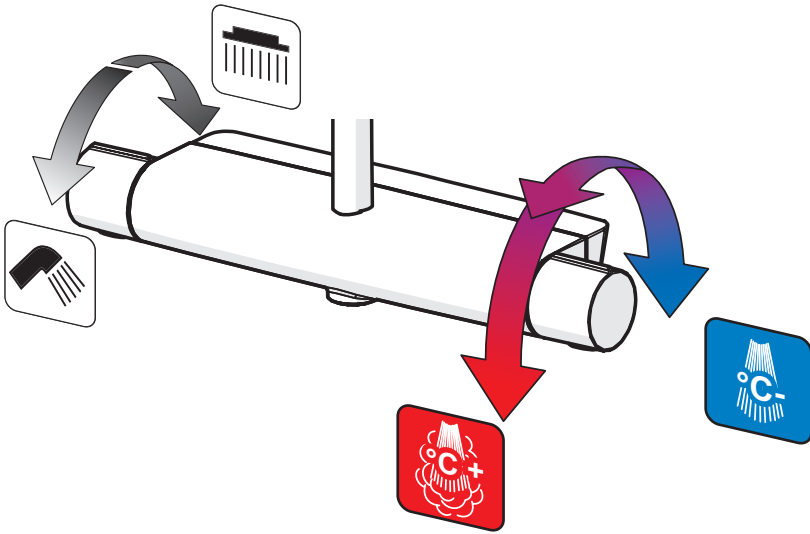
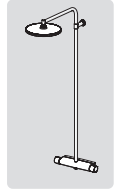
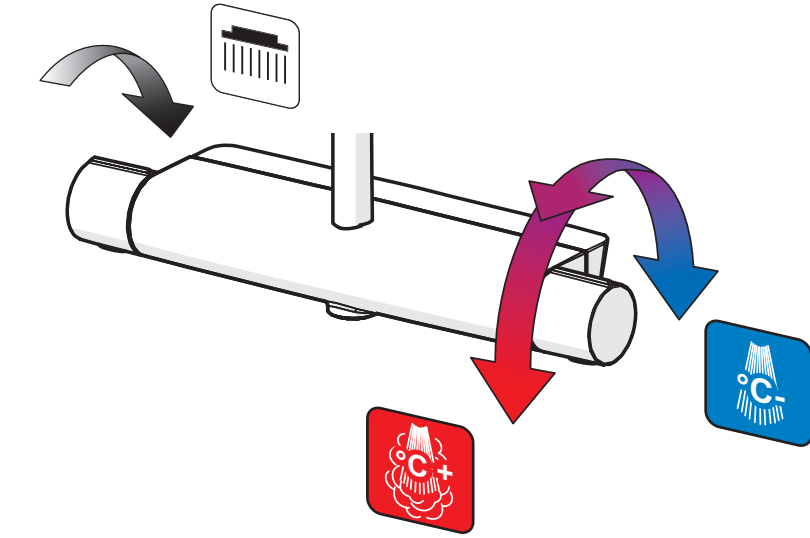
C  8x40 x 1

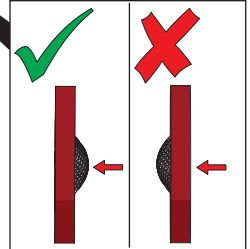
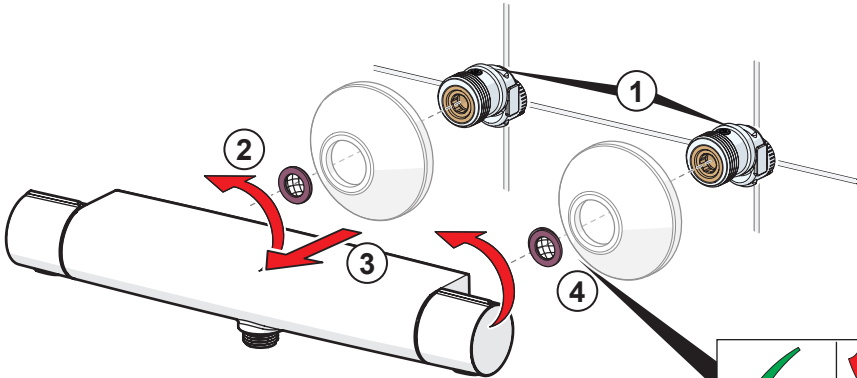
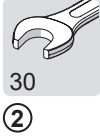
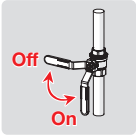
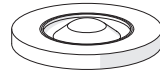


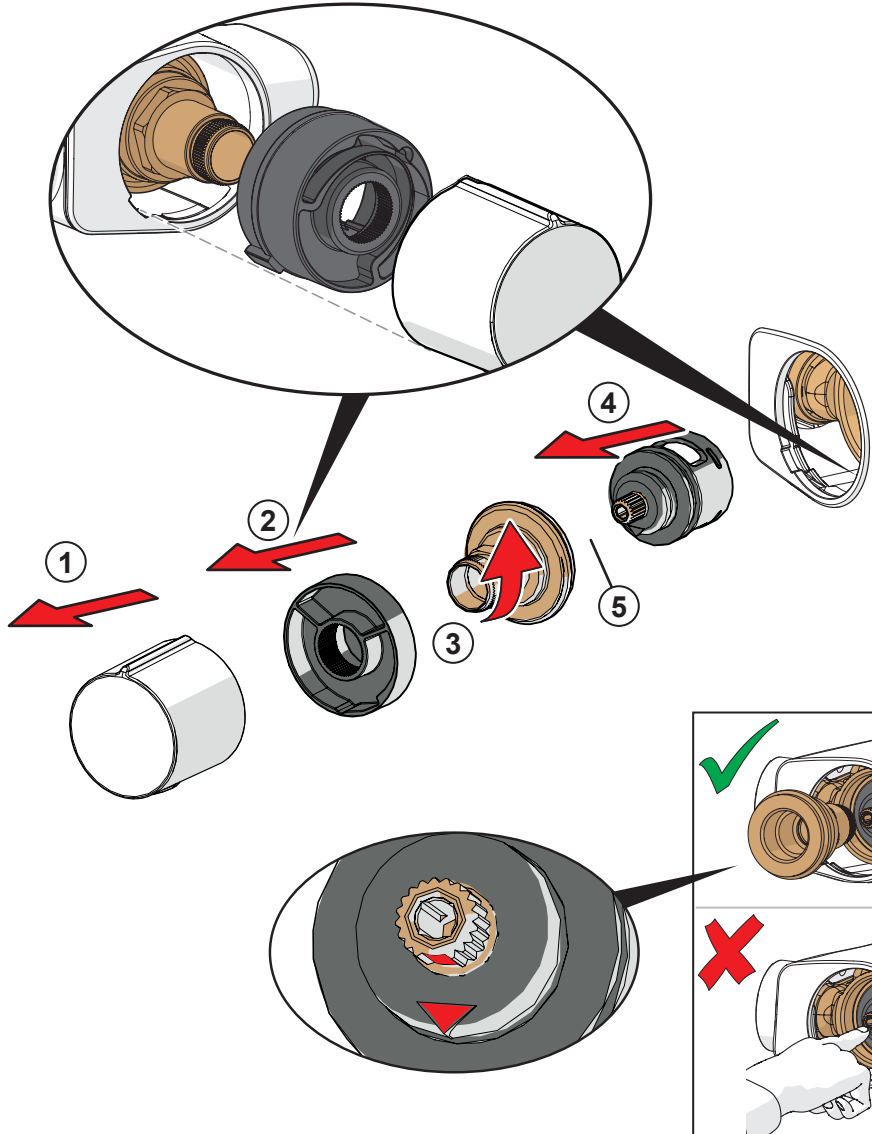
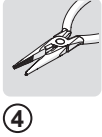
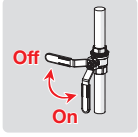
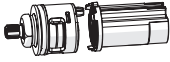
Max 65°C

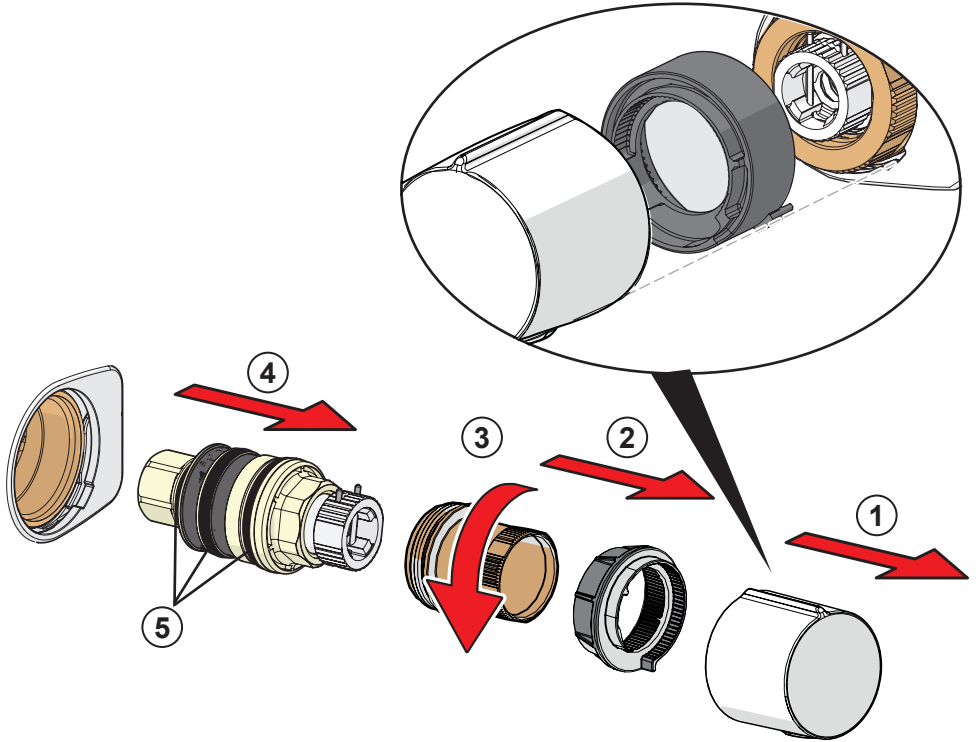
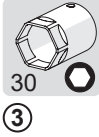
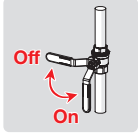






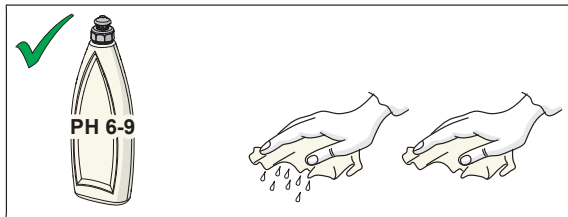
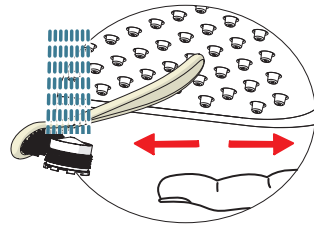
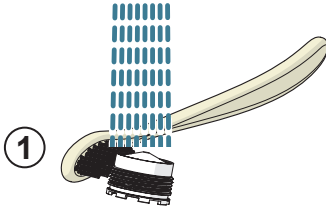
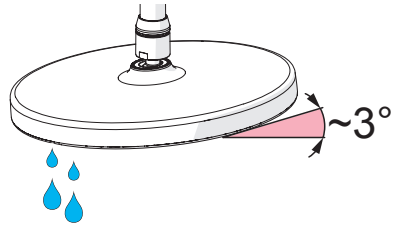








①



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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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