

TOP CARTRIDGE



Get access to the complete and latest product technical data!

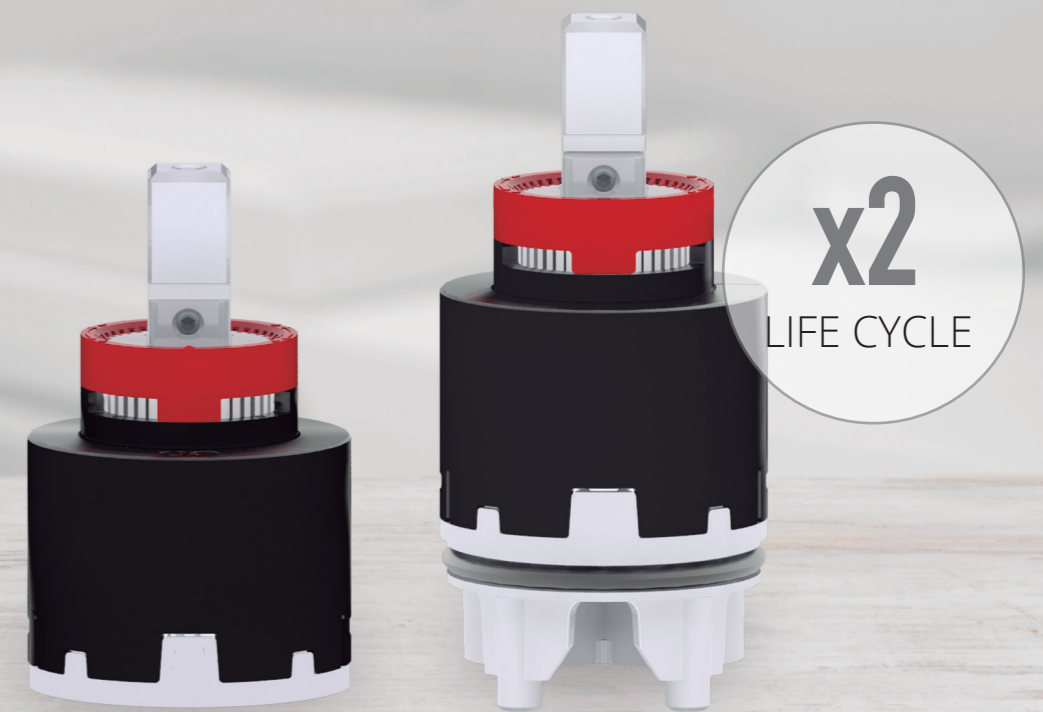


SEDAL GROUP

Polígono Industrial Can Sunyer · C/Química, 2-12
E-08740 Sant Andreu de la Barca (Barcelona) · Spain
Tel. +34 93 680 33 00 · Fax +34 93 680 33 03
sedal@sedal.com · www.sedal.com

EN-35 TOP is a 35mm cartridge created to be THE BEST IN CLASS, outstanding its competitors in all fields and offering the manufacturer a perfect balanced cartridge with an extraordinary endurance: 2x standard life cycling tests. It is also available with TRN technology for water and energy saving.

TOP



FEATURING

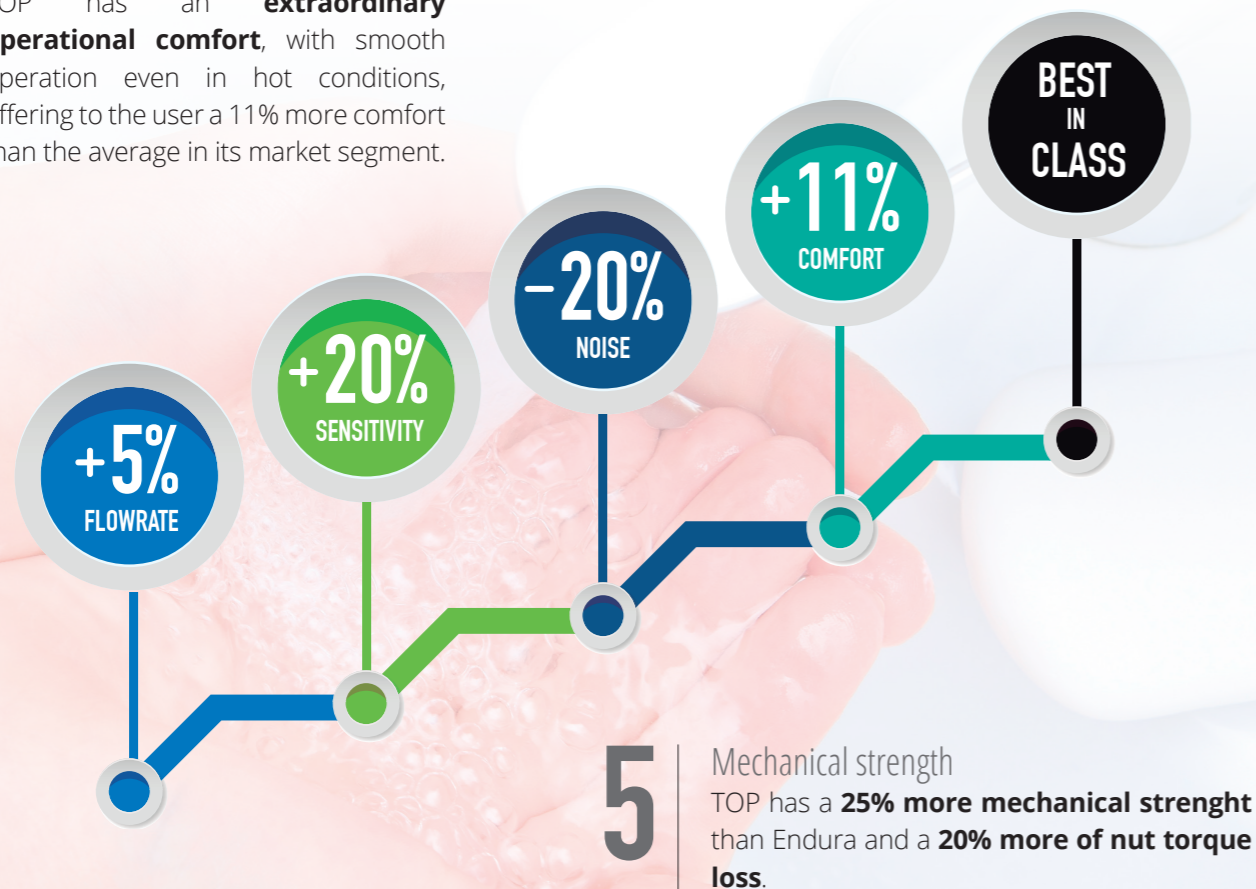


1 Higher flow rate
TOP has a 5% more flowrate than the average in its market segment. It also has **3.5% more flowrate** than its closest competitor and it is substantially better than the standard cartridges.

2 The best in sensitivity
TOP has a **20% more sensitivity** than its closest competitor. It has a 12% more sensitivity than the average cartridges in the market.

3 Lower noise level
TOP produces only 16dB, **20% less noise** than the average in its market segment and also than its closest competitor.

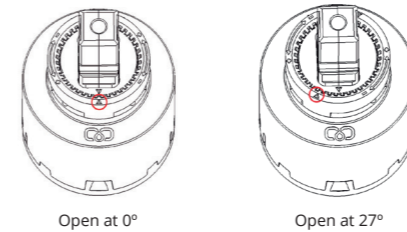
4 Extraordinary comfort
TOP has an **extraordinary operational comfort**, with smooth operation even in hot conditions, offering to the user a 11% more comfort than the average in its market segment.



VERSIONS

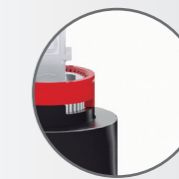
Temperature limiter function

TOP cartridge has an optional ring called TR that allows limiting maximum temperature in 10 selectable stops (every 9°), enabling an anti-scalding safety feature.



Flow limiter function

TRN optional technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.

TECHNICAL SPECIFICATIONS

Nut torque/Pitch M1,5	10-12 Nm
Opening angle	23°
Rotation angle	100°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>60 bar
Life cycle- x2 ASME	1,000,000 cycles
x2 EN 817	140,000 cycles
NF-077 U3	175,000 cycles
x2 GB-18145	140,000 cycles
Sensitivity	>13.5 mm
Fidelity	<2 °C
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<3 °C - <4 °C
Max. hot water	90 °C
Flow rate at 3 bar	
Free flow	29.3 l/min (C/D) · 29.5 l/min (S/D)
Operation Torque	
Open-close	0,15÷0,30 Nm
Turn left-right	0,15÷0,25 Nm
Noise level (A2-NF077)	16 ± 2 dB

C1, C2, C3
NF ECAU
COMPLIANT
VERSIONS

-Hammer test NF-077.
-High temp. pressure test AS-NZS

Tested with proprietary fixtures at SEDAL lab. (1) Considering restrictor & faucet body type



Get access to the complete and latest product technical data!



SEDAL GROUP

Polígono Industrial Can Sunyer · C/Química, 2-12
E-08740 Sant Andreu de la Barca (Barcelona) · Spain
Tel. +34 93 680 33 00 · Fax +34 93 680 33 03
sedal@sedal.com · www.sedal.com

28mm CARTRIDGES

NEW STANDARD RANGE

Sedal has developed a new 28mm range of cartridges, allowing to keep the slim design of a 25mm cartridges but with the robustness of a 35mm.



FEATURING

SN-28

Slim design & Higher flow rate

The SN28 cartridge provides a slim design capability but not as thin as 25mm cartridges, resulting in an interesting intermediate way in between 35mm and 25mm taps. The manufacturer can keep a slim design but can obtain a higher flow rate.

RECOMMENDED APPLICATIONS



WASHBASINS

Specially designed for washbasins.



KITCHEN

Suitable for use in kitchens.

28MM CARTRIDGES
NEW
STANDARD



Soft movement

It features soft operational movement thanks to a clutched ceramic movement and high grade ceramics. Up to 40% softer lever operation than standard cartridges thanks to this operation design.

EX-28

Compact design

Compact 28 mm cartridge specially designed for short faucets. Compact cartridges allow the manufacturer to create minimalistic faucets without giving up the high-performance features of the cartridges.

RECOMMENDED APPLICATIONS



CONCEALED WASHBASINS

Specially designed for washbasins.



CONCEALED SHOWER

Specially designed for one outlet showers.



CONCEALED KITCHEN

Suitable for use in kitchens.

TECHNICAL SPECIFICATIONS

Nut torque pitch M1.5	7-8Nm
Opening angle	23°
Rotation angle	100°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>35 bar
ASME 112.18.1 M	500,000 cycles
Sensitivity (r=45mm)	>10 mm
Fidelity	<5°C

Tested with proprietary fixtures at SEDAL lab. (1) Considering restrictor & faucet body type

Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4°C - <6°C
Max. hot water*	90 °C
Operation Torque	
Open-close	0.15-0.30 Nm
Turn left-right	0.25-0.35 Nm
Flow rate at 3 bar	
at 0.2 bar	5.7 l/min
at 1 bar	12 l/min
at 3 bar	20.3 l/min
at 5 bar	25.8 l/min

TECHNICAL SPECIFICATIONS

Nut torque pitch M1.5	8 Nm
Opening angle	22°
Rotation angle	90°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>35 bar
Life cycle - EN 817 ASME 112.18.1 M	140,000 cycles 500,000 cycles
Sensitivity	10°-12° angle
Fidelity	3 °C

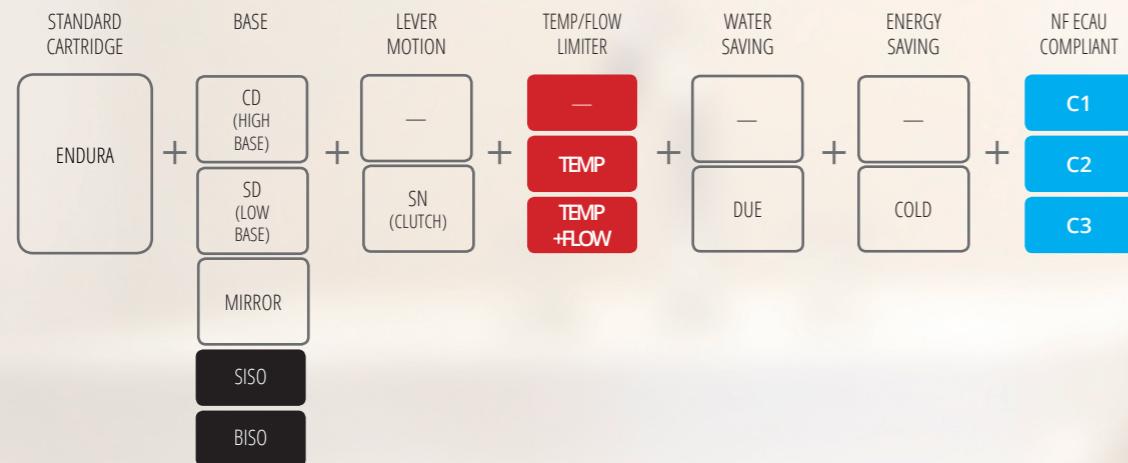
Max. hot water*	90 °C
Operation Torque	
Open-close	0.15-0.25 Nm
Flow rate at 3 bar	
at 0.5 bar	8.6 l/min
at 1 bar	12.2 l/min
at 3 bar	21.2 l/min
at 5 bar	27.5 l/min

Tested with proprietary fixtures at SEDAL lab. (1) Considering restrictor & faucet body type

THE RANGE

The new ENDURA cartridge range has been designed as a modular system, completely compatible throughout all options*. This feature allows the manufacturer to create its own version by simply adding preset standards to the basic cartridge. More than 100 potential combinations make the ENDURA virtually suitable for any application.

*Except for SISO, BISO and SIO bases.



TECHNICAL SPECIFICATIONS

Nut torque/Pitch M1,5	10-12 Nm
Opening angle	25°
Rotation angle	90°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>50 bar
Life cycle - EN 817 NF U3	175.000 cycles
x2 ASME	1.000.000 cycles
x2 GB18145	140.000 cycles
Sensitivity	>12 mm
Fidelity	<2 °C

Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4 °C - <6 °C
Max. hot water	90 °C
Flow rate at 3 bar	
Free flow	27,70 l/min (C/D) · 26,10 l/min (S/D)
C-Restrictor	20,80 l/m (C/D) · 20,20 l/min (S/D)
Operation Torque	
Open-close	0,20÷0,35 Nm
Turn left-right	0,15÷0,25 Nm
Noise level	20 ± 2 dB

Tested with proprietary fixtures at SEDAL lab. (1) Considering restrictor & faucet body type



Get access to the complete and latest product technical data!

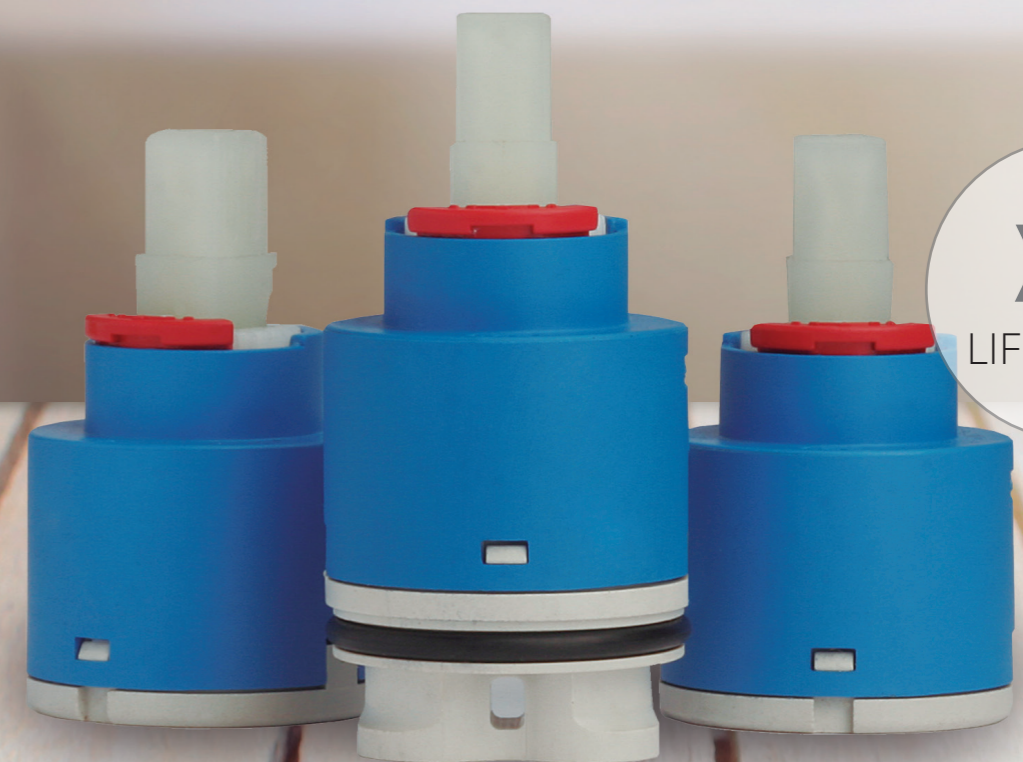
osedal
THE FAUCET'S HEART

ENDURA CARTRIDGE

35mm RANGE

The new ENDURA 35 cartridge shows an extraordinary endurance: 2x standard life cycling tests. A complete set of technologies that have been built into this new piece of engineering to go far beyond competition. Featuring a set of SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology in its heart, the ENDURA cartridge range will give the manufacturers all the features that the market is demanding... and more

endura



x2
LIFE CYCLE

osedal
THE FAUCET'S HEART

FEATURING

HIGH
PRECISION
COMPONENTS



1 New from scratch
We have developed a newly built ENDURA 35 valve. High precision components, along with excellent performing materials make the new ENDURA suitable for virtually any application.

2 A bunch of technology
A complete set of high tech solutions:

- Glide Feel Technology for a perfectly smooth operation
- Ceramic Nano Shelter Technology to provide extra durability,
- Noise Cancelling Technology to lower the noise level
- AccuDue Technology to deliver high precision water saving value.



C1, C2, C3
NF ECAU
COMPLIANT
VERSIONS

5 Great range, greater possibilities
The new ENDURA 35 range provides the manufacturer with 18 different options to develop its products and more than 100 potential combinations. Water and energy saving technologies, safety temperature regulation, maximum water flow limiter, as well as standard selections are available and fully compatible.

3 SedalOX™ 96 RTP, keystone
The new ENDURA features SedalOX™ 96, a high performance ceramic set by Sedal Ceramics. This 96% Aluminum Oxide Ready To Press (RTP) powder performs above expectations thanks to Nano Shelter Technology™, which creates nanometer sized deposits for the grease on the disc surface for an extended life cycling. The result is more than double ASME and EN standard cycles in life tests.

4 Mirror version for kitchen applications
Mirror version has been specifically designed for kitchen applications, avoiding the inconvenience of the handle touching the wall.

NEW!
MIRROR
VERSION
AVAILABLE



6 New SISO, SIO, and BISO options
Sedal offers DRY FAUCET base configurations with threaded inserts.

- SISO (side in-side out)
- SIO (side in and out)
- BISO (bottom in-side out)

With this solutions, the ENDURA cartridge allows the manufacturer to completely avoid contact between faucet and water by plugging the inlet and outlet hoses directly into the cartridge.



KTW-WRAS-AS/NZS-
NSF-ACS
CERTIFIED



GC-25 CARTRIDGE

GC-25 cartridges include Trialox Technology, a new revolutionary ceramic set that boosts the life expectancy of the cartridge while improving its performance and robustness. This upper sealed cartridge allows the manufacturer to work with different faucet configurations.



Get access to the complete and latest product technical data!



cosedal
THE FAUCET'S HEART

cosedal
THE FAUCET'S HEART

ADVANTAGES

1

Trialox Technology

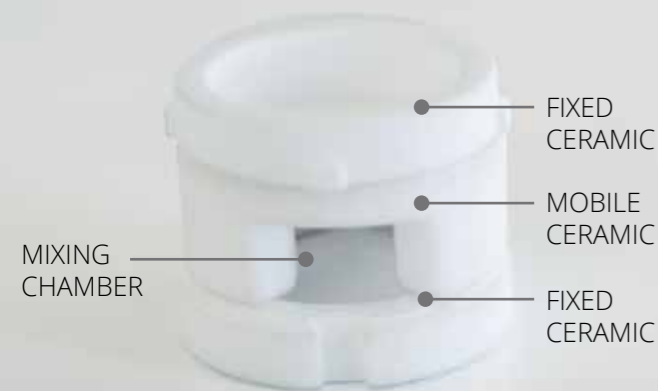
The new GC-25 Trialox features a new ceramic design that boosts its life expectancy while improving consistently the comfort of operation. Sedal's Trialox Technology is at the heart of this upper sealing 25mm cartridge to deliver a significant high flow for such a small footprint.



2

New revolutionary ceramic set

The GC-25 Trialox consists on a mobile ceramic sandwiched between two fixed ones, instead of the classic two ceramic construction. The water flows inside GC-25 through the lower ceramic to the mixing chamber. The upper fixed ceramic ensures leakage protection while keeping operation smooth.



3

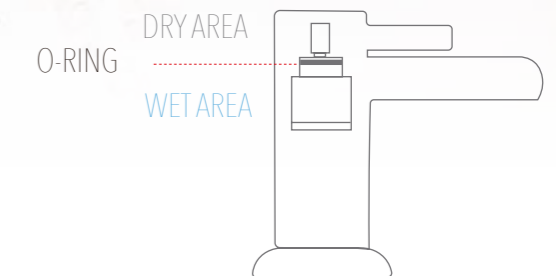
High performance

Along with a high flow, the GC-25 Trialox ensures a full EN817 or ASME cycling while keeping the torque of operation and comfort parameters regularly.

5

Multiple design options

The small size of GC-25 makes it specially suitable for slim design faucets, allowing the manufacturer to innovate with its design without giving up the high-performance and robustness of the product. This cartridge has also an upper sealing that enables multiple design configurations



4

Robust design

The GC-25 Trialox has been designed with robustness in mind. The body and internal components are made of high performance technical plastics while the lever is metallic to give an extra feeling of safety at the stroke ends.

TECHNICAL SPECIFICATIONS

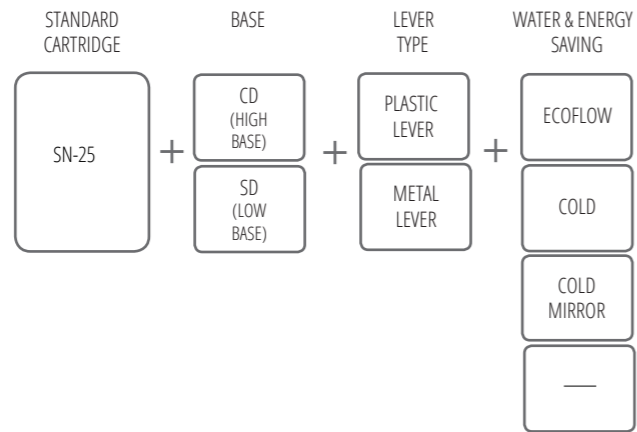
Nut torque/Pitch M1,5	7-8 Nm
Opening angle	23°
Rotation angle	90°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>35 bar
Life cycle - EN 817	70.000 cycles
ASME A112.18.1	500.000 cycles
Max. hot water	90 °C
Sensitivity	11-13° angle
Fidelity	<3°C

Constant 63°C & 50°C (6 l/min - 3 l/min)	<4°C - <6°C
Flow rate at free flow	
0.5 bar	6.4 l/min
1 bar	9.2 l/m
3 bar	16.1 l/min
5 bar	20.9 l/m
Operation Torque	
Open-close	0,15÷0,40 Nm
Turn left-right	0,15÷0,40 Nm

Tested with proprietary fixtures at SEDAL lab. (1) Considering restrictor & faucet body type

THE RANGE

SN-25 cartridge range has been designed with multiple features to allow the manufacturer to create its own version by simply adding preset standards to the basic cartridge, such as metal lever or energy and water saving elements.



SN-25 CARTRIDGE

25mm RANGE

TECHNICAL SPECIFICATIONS

Standard SN-25 performs above expectation

Nut torque/Pitch M1,5	7-8 Nm
Opening angle	22,5°
Rotation angle	90°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>35 bar
Life cycle - EN 817	140.000 cycles
ASME 112.18.1 M	1.000.000 cycles
Sensitivity	>10 mm
Fidelity	<5°

Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4 °C - <6 °C
Max. hot water	90 °C
Flow rate at 3 bar	
Free flow (basin DN8)	16.1 l/min (C/D) · 17.2 l/min (S/D)
Free flow (bath)	19 l/m (C/D) · 20.9 l/min (S/D)
Open-close	0.20±0.40 Nm
Turn left-right	0.15±0.35 Nm



Get access to the complete and latest product technical data!

cosedal
THE FAUCET'S HEART

New SN-25 cartridges from SEDAL have been designed to perform above standards including robust lever design, smooth operation and higher flow than previous versions, providing great value-added products for the faucet's manufacturer.



cosedal
THE FAUCET'S HEART

FEATURING



1

Improved performance

25mm cartridges are typically more sensitive to tough conditions, so we developed a new 25mm valve improving the technical specifications from previous versions to achieve the best performance.

- +30% flow rate increase
- +20% smoothness operation torque
- -50% noise reduction

2

More endurance

The application of new technologies inside our cartridges has extended SN-25 endurance:

- 2 x ASME / 2 x EN-817 life cycle
- Improved plastic material robustness
- +50% Increased torque resistance
- +30% Increased flexion resistance

3

Tough construction for small faucet designs

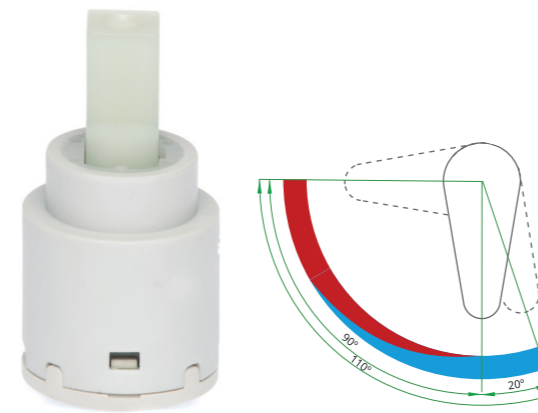
The small size of SN-25 makes it specially suitable for slim design faucets, allowing the manufacturer to innovate with its design without giving up the high-performance and robustness of the product.

VERSIONS

Cold opening for water saving

Sedal has developed a new version of SN-25 with cold start opening (with and without distributor), which flows cold water when the lever is centered.

This energy saving feature will help the user to have a better control of energy consumption.



NEW!

METAL
LEVER
AVAILABLE



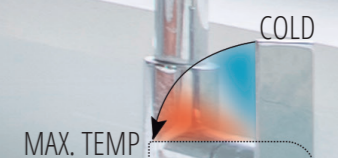
Metal lever

SN-25 is available with a metallic lever (with and without distributor) for higher resistance while keeping smooth operation and precision.

5

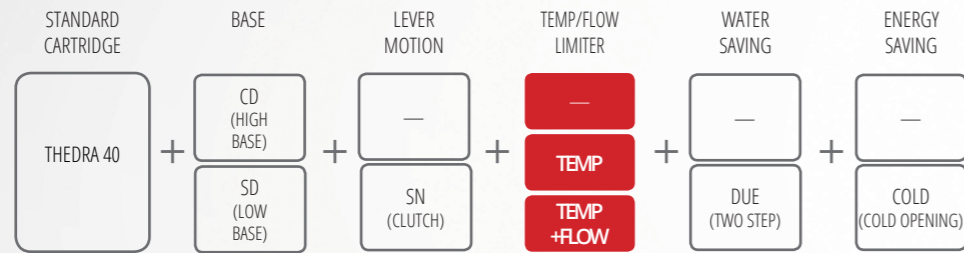
Mirror version for kitchen applications

Mirror version has been specifically designed for kitchen applications, avoiding the inconvenience of the handle touching the wall.



THE RANGE

The new THEDRA cartridge range has been designed as a modular system, completely compatible throughout all options. This feature allows the manufacturer to create its own version by simply adding preset standards to the basic cartridge. More than 20 potential combinations make the THEDRA virtually suitable for any application.



THEDRA CARTRIDGE

40mm RANGE

TECHNICAL SPECIFICATIONS

Nut torque/Pitch M1,5	10-12 Nm	Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4 °C - <6 °C
Opening angle	25°	Max. hot water	90 °C
Rotation angle	100°	Flow rate at 3 bar	
Working pressure (recommended)	1 - 5 bar	Free flow	31,50 l/min (C/D) · 28,60 l/min (S/D)
Burst pressure	>50 bar	C-Restrictor	22,10 l/m (C/D) · 21,10 l/min (S/D)
Life cycle - EN 817 NF U3 x2 ASME	175.000 cycles 1.000.000 cycles	Operation Torque	
x2 GB18145	140.000 cycles	Open-close	0,20±0,40 Nm
Sensitivity	10±12 mm	Turn left-right	0,20±0,40 Nm
Fidelity	<3 °C	Noise level	16 ± 2 dB (C/D)

Tested with proprietary fixtures at SEDAL lab. (1) Considering restrictor & faucet body type



Get access to the complete and latest product technical data!

sedal
THE FAUCET'S HEART

The new Sedal's THEDRA cartridge range sets a new standard in ceramic single lever valves. Its unique clean and smart design confers the THEDRA cartridge an undeniable ability to withstand the most extreme working conditions. The new THEDRA is the first cartridge in history that has been awarded with an international design award.



reddot award 2016
winner

THEDRA



sedal
THE FAUCET'S HEART

FEATURING

1

Out of solid rock

THEDRA is designed according to the roughest manufacturer's technical requests: compression, torque, handle load, burst and life cycles, granting smooth but firm user operation thanks to Glide Feel Technology.



WITHSTANDS
THE
TOUGHEST
WORKING
CONDITIONS

5

Enjoy the silence

The THEDRA cartridge range has NF Class I compliant cartridges, thanks to the perfect integration of the movable ceramic with the holder featuring Sedal's Noise Cancelling Technology, delivering as low as 16 dB noise level for bath, shower, basin and kitchen applications.

NOISE
CANCELLING
TECHNOLOGY



2

Challenge, Technology

Careful design, ceramic expertise, several smart technologies (Glide Feel Technology, Ceramic Nano Shelter Technology, Noise Cancelling Technology, AccuDue Technology), high performance materials and extraordinarily precise components are used to build the new THEDRA cartridges.

3

Long live the King

The new THEDRA cartridge performs and lives beyond average: 2 times ASME life cycles. Longer life will give the manufacturers and users the peace of mind they expect when buying a lifetime piece.

4

SedalOX™ 96 RTP, keystone

The new THEDRA features SedalOX™ 96, a high performance ceramic set by Sedal Ceramics. This ceramic has been formulated to perform above our competitors thanks to Nano Shelter Technology, which creates nanometer sized deposits for the grease on the disc surface for an extended life cycling. The result is more than double ASME cycles in life tests.

x2
LIFE
CYCLE



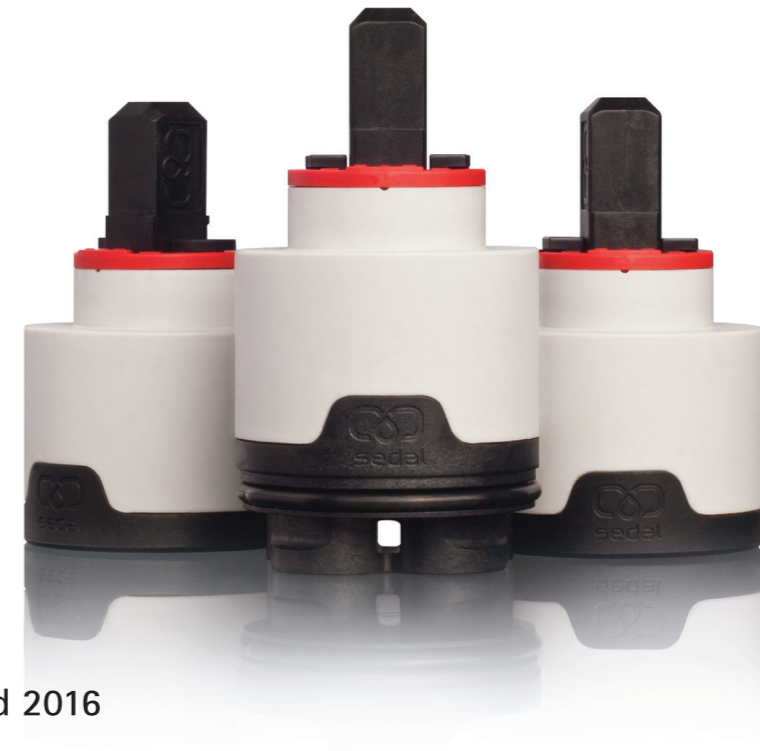
6

Unequal design, unequal results

THEDRA was granted with reddot award in 2016. Its unique design makes it unmistakably recognizable and fake safe. But not only that, its clever design also makes it do what it does: Perform above expectations.



reddot award 2016
winner



7

Great range, greater possibilities

THEDRA valve range provides more than 20 different combinations for the manufacturers to develop their products. Water and energy saving technologies, safety temperature regulation, maximum water flow limiter, as well as standard selections are available and fully compatible.