Armitage Shanks

brassware solutions... what works and why

an informative guide to: brassware requirements

www.armitageshanks-MENA.com
In a world increasingly conscious of its diminishing natural resources it could be argued that no object in the washroom is more important than the one that controls the flow of water. Although the humble tap has been with us for many years its importance in water economy has only recently been widely acknowledged and supported by development.

Of course Armitage Shanks has produced water saving taps for over 30 years. Armitage Shanks has long recognised the benefits of designing taps, mixers and valves for a specific purpose; ceramic disc technology provides low maintenance and drip free outlet for a range of domestic and commercial applications. Thermostatic valves allow precise temperature and safety control in healthcare projects, while automatic and self closing taps provide water economy in public washrooms. Whatever the application a tap, valve or mixer exists within the Armitage Shanks range to satisfy it.

A depth of knowledge and experience in the fields of research and development, casting and assembly enables Armitage Shanks to provide cutting edge performance in almost every commercial application, from executive bathroom to surgical operating theatres.

This guide will outline the specification issues of individual applications, cover the relevant legislation, and ensure the selection of the most suitable brassware items for future projects.

In 1817 Thomas Bond founded the company that would become Armitage Shanks with a simple objective; to produce sanitary ware of exceptional quality. Over the last 190 years, investment in technology and traditional manufacturing skills has remained at the core of the business.

Armitage Shanks has a history of innovation, a tradition of product development and a commitment to sustainable design. These factors manifest in a comprehensive product range that is a ‘one stop shop’ for the specifier.

Part of the Essential Specifiers Series, a collection that will make the process of selecting the right product much simpler, this guide provides the information needed to ensure you meet the needs of your client and current legislation.

As the market leader Armitage Shanks believes it has a responsibility to help define the modern washroom. For almost two centuries it has literally set the standard.

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Q: what are the key features, and the associated benefits of modern brassware?

A: brassware performance can be described by three criteria; durability, functionality and economy.

Lever (1)
The critical human interface with any tap or mixer is the handle. Our ergonomically designed handle delivers precision control of both water flow and temperature even when the users hands are wet, thanks to its unique grip characteristics. Die-cast from zinc for consistent performance and long term durability, this single lever handle has clear hot and cold indices that will not fade or rub-off even after many years of use and cleaning.

CLICK technology (2)
The efficient use of water is always a priority; why use a mixers full flow rate when a reduced flow will suffice? A special cartridge allows the lever to be ‘clicked’ from off to 50% flow and then to 100% if required. Saves water, saves money.

Seal (3)
Commercial spray cleaners are effective, but can damage the inner workings of many mixers. But not this one. A special seal underneath the handle ensures that liquid cleaners cannot enter the body of the tap. This attention to detail helps to produce a mixer that has an unrivalled life expectancy.

Temperature limiter (4)
Performance must always be balanced with safety. The internal casting of the lever has a ‘stop’ that acts as a mechanical, foolproof, method of controlling water flow.

Metal pop-up waste (6)
How many times have you seen it; you walk to a washroom basin to wash your hands and each basin is full of scummy second-hand water? Why? Because the waste plug is not working. This durable, all metal, pop-up waste mechanism has been tested through thousands and thousands of open/close cycles. It doesn’t do anything clever it just keeps working. For a very long time.

Incorporating advanced ceramic disc flow control and water saving CLICK technology, no mixer is more reliable, safer, efficient and eco-friendly.

Ceramic disc (5)
Two small ceramic discs, polished so smoothly that when placed together they create a vacuum that holds them in place, are the key components of the ceramic disc cartridge assembly. The discs, made from a material developed during the space race, replace the traditional rubber washer as a method of controlling water flow.

EasyFix (8)
The difficulty of centring a mixer in the tap hole of a basin is well known to any plumber; position the mixer, snug up the bolt, turn the basin over (or go underneath it, fully tighten the bolt, turn the basin over, discover the mixer has moved (exposing a gap between it and the basin). Frustrating, time consuming and costly. The EasyFix system uses a single stainless steel bolt to both secure and centre the mixer automatically; in one single, fast operation.

Body (9)
The heart of any item of brassware is the body; a precision cast and machined industrial sculpture that defines the look and performance of the product. Each body is manufactured in a highly automated facility to ensure a consistently high level of quality. Then it is finished and inspected by skilled workers before assembly can begin. As you would expect, the body is cast from brass fully compliant with European material standards.

Water inside the body of a mixer is subject to many different twists, turns and constraints. Often the flow pattern at the outlet may be effected and efficiency reduced. Perhaps more importantly, a disturbed outlet flow tends to produce an aerosol of water, any bacteria lurking inside that aerosol will be inhaled by the user. Our mixer bodies are designed to produce a laminar flow that delivers a smooth flow and no airborne bacteria.

Outlet (10)
To ensure the optimum performance of a tap or mixer; the outlet nozzle of many products can be removed so that limescale and other debris can be cleared. This feature also allows the fitting of a water saving flow restrictor capable of reducing water usage by up to 80%. Of course, outlets can only be removed with a special key, just one of our mixers anti-vandal properties.
Q: can technology really improve the simple tap?
A: applying technological innovation to brassware optimises the performance of a client’s washroom, improves safety and can save them money.

Technical innovation
Contour 21 sets the standard for modern commercial taps and mixers. Their technical excellence makes them the most reliable, fit for purpose brassware products in the market today. Many of their features have benefited from Armitage Shanks continual market today. Many of their features have benefited from Armitage Shanks continual technical innovation. A maximum hot temperature can be chosen from one of four pre-set temperatures, all of which will stop the delivery of scalding water when the mixer is in the fully open hot position.

Ease of use
The use of a multipoint performance ceramic disc cartridge in Contour 21 gives the product a simple mixed water temperature control system. The sweep of a mixers single lever has a comfort zone within which water is mixed to between 30 – 45°C when set. This gives the user more sensitive control and provides effortless operation even at high water pressures.

Reduced risk
No responsible client wants their workforce exposed to the potential scalding danger of a mixer without an upper temperature limit. The temperature limit stop built into the CLICK cartridge eliminates this risk. A maximum hot temperature can be chosen from one of four pre-set temperatures, all of which will stop the delivery of scalding water when the mixer is in the fully open hot position.

Savings water
In most cases the ultimate water usage of a fitting is determined by the building water pressure and the size of the valve in the brassware. In many commercial buildings, fittings operating at a high-pressure supply may be delivering unnecessary volumes of water. Installing a flow restrictor in the supply pipe work or the tap/mixer outlet ensures only the amount of water necessary for the purpose flows through the fitting. This saves water and reduces supply and drainage costs to the client.

The mixer outlet regulator will limit the maximum flow of a fitting to only 5 litres of water per minute at 3 bar. The restrictor simply screws onto the outlet and produces a laminar flow that saves a significant volume of water and well suited for effective cleansing.

Electronic brassware (1)
What was once the stuff of science-fiction is now common place. Only a few years ago a tap that switched itself on and delivered water just when you wanted it, without having to touch it, would have been seen as a technological marvel. Today such outlets are well established, but not all electronic mixers are created equal.

The broad category of mixers that can be called “no-touch” mixers must be more than just a technical gimmick. To meet the needs of demanding specifiers and clients they must be aesthetically pleasing, reliable, hygienic, resistant to vandalism or misuse and easy to maintain.

Our sensors are intelligent. They recognise when they are being misused. If someone tries to fool the mixer into releasing water permanently by covering the sensor for a prolonged period, it will shut off the supply and only resume normal operation when the object is removed. In addition to defeating vandalism this feature can be used by those who need to clean and maintain the mixer.

Thermostatic brassware (2 & 3)
The purpose of a thermostat is to control and limit temperature. This prevents scalding and makes the washroom a safer environment for everyone.

Unfortunately many water-borne bacteria can survive in low/infrequently used fittings, which deliver mixed water in the 25-50°C range.

For these types of installation the two mixers opposite have unique maximum temperature override facilities. By using a special tool, maintenance staff can effectively shut down the thermostat and allow hot water to flow through the fitting at full system temperature. This will thermally disinfect the mixer and, when performed on a regular basis, will inhibit the growth and transmission of bacteria.
Q: can taps and mixers make a washroom water efficient? and how will it benefit the client?

A: yes, by selecting water saving products and ensuring compliance with relevant DEFRA and BREEAM guidelines, your clients paying corporation tax at the 30% rate will save money and all your clients can gain BREEAM credits.

Most of the Contour 21 brassware featured in this Essential Specifiers Series guide is DEFRA Water Technology List approved.

Simply put, clients who pay corporation or income tax will get a 100% first year tax allowance on all brassware products that are chosen from the Water technology list. And every client will save money on water bills.

BREEAM’s remit goes far beyond simple water saving, it addresses energy usage, material suitability, occupier comfort and many other environmental impacts.

The benefits of creating and using a BREEAM building extend to both designer and client. The client receives a building that supports a corporate environmental strategy, that is a better place to visit and that has increased marketability. The designer can clearly demonstrate compliance with environmental requirements and have the satisfaction of working to a formalised best practice.

Within the BREEAM programme there are sections dedicated to designing and assessing schools, retail facilities, offices, prisons, courts and general industrial buildings. A bespoke section caters for all other building types. Each section sets out the steps necessary to obtain compliance and the highest BREEAM points ranking.

Energy efficiency is increasingly important to clients and specifiers. In response to this the CLICK cartridge has been introduced to the Contour 21 range of mixers. To operate, the user lifts the lever vertically until they feel a resistance. This indicates that a flow rate of 50% has been achieved and water is being saved.

By continuing to lift the handle to its ‘stop’ 100% water flow will be reached. Each CLICK cartridge also includes a temperature limiting system that can be set at one of four pre-set temperatures to reduce the risk of scalding and save water heating costs.

The example below shows the water used by running a tap for 2 minutes, twice a day while brushing teeth. Of course, we wouldn’t suggest you leave the tap running whilst brushing your teeth!

Water savings using CLICK technology

<table>
<thead>
<tr>
<th>Water pressure</th>
<th>0.5 bar</th>
<th>1.0 bar</th>
<th>2.0 bar</th>
<th>3.0 bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional tap uses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 litres</td>
<td>16 litres</td>
<td>22 litres</td>
<td>27 litres</td>
<td></td>
</tr>
<tr>
<td>CLICK tap uses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5 litres</td>
<td>3.5 litres</td>
<td>5 litres</td>
<td>6 litres</td>
<td></td>
</tr>
<tr>
<td>Water saving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.5 litres</td>
<td>12.5 litres</td>
<td>17 litres</td>
<td>21 litres</td>
<td></td>
</tr>
</tbody>
</table>

Water technology list product

£750

Installation £1250

Total cost £2000

100% first year enhanced capital allowance can be offset against profit

Organisations that pay 30% corporation tax will save 30% of the total cost

= £600 SAVING*
Q: a tap is a tap, is a tap. isn’t it?
A: every tap or mixer is designed to do a specific job. form follows function

single lever mixers and pillar taps / p10
World famous industrial designers. Cutting edge technology. State of the art manufacture. These taps and mixers will perform outstandingly in a wide spectrum of buildings, giving year after year of reliable use.

Features and benefits
- Extensive style choices cater for a wide range of installations.
- Ceramic disc technology improves performance and reduces maintenance.
- 50% reduction in water usage thanks to CLICK technology.
- Clear hot/cold indices that will not wear off through use or cleaning.
- Laminar flow design helps to eliminate the creation of airborne bacteria.
- Smooth inner bore SPX hoses helps to reduce bacteria growth.
- Ergonomic handles provide precise control even when wet.
- Easy to clean smooth organic body design.

electronic brassware / p14
The demand for hygiene and performance is met by a range of hands-free electronic taps second to none. Remote sensors detect a users presence at the basin and control water flow to ensure that it is only released when required.

Features and benefits
- ‘No touch’ operation improves the hygiene of the washroom.
- Controlled water release improves water economy.
- Power can be supplied by mains or battery.
- No moving external parts reduces the chances of vandalism.
- Available for basins, showers and urinals.
- Easy to clean smooth organic body design.
- Fully compliant with Part M of the building regulations.

thermostatic brassware / p24
When the safe delivery of water at a specific temperature is paramount, the thermostatically controlled mixer represents the ultimate. A predetermined maximum temperature reduces chances of scalding and saves water wasted whilst establishing a comfortable temperature.

Features and benefits
- Prevents scalding by limiting maximum temperature.
- Fully Part M compliant.
- Single lever operation makes use quick and simple even when wet.
- Can be operated with a closed fist by the physically impaired.
- Clear hot/cold indices that will not wear off through use or cleaning.
- Easy to clean smooth organic body design.

push button brassware / p30
Often the durability of a fitting must be balanced with its water saving characteristics. Push button taps require no such compromise. It has no handle, making it very robust, and pressing the button starts water flowing for a pre-set period only.

Features and benefits
- Anti-vandal design minimises maintenance and downtime costs.
- Self closing ‘shut off’ action provides excellent water economy.
- Can be operated with a closed fist, suitable for Part M use.
- Easy to clean smooth organic body design.
**single lever mixers and pillar taps**

Piccolo 21 and Nuastyle 21 are a range of pillar taps and monoblock mixers designed to satisfy the performance needs of specifiers and clients alike. Style and durability are built in, user safety and ergonomics are a given.

**features and benefits**

World famous industrial designers. Cutting edge technology. State of the art manufacture. These taps and mixers will perform outstandingly in a wide spectrum of buildings, giving year after year of reliable use.

- Extensive style choices cater for a wide range of installations.
- Ceramic disc technology improves performance and reduces maintenance.
- Lever operation, makes for better ergonomics.
- CLICK technology reduces water usage by 50% (single lever mixers only).
- Clear hot & cold indices that resist wear from use and cleaning.
- SPA hoses have a smooth inner bore which help to reduce bacteria growth (single lever mixers only).
- DDA compliant ergonomic handles give precise control even when wet.

For complete technical information please call 0870 122 8822

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**Piccolo 21**

Single lever monoblock basin mixer, without pop-up waste (left, also see page 13).

**Nuastyle 21**

1/2” basin pillar taps pair (right, also see page 13).
single lever mixers and pillar taps: the complete range

B8260AA Piccolo 21
Single lever monoblock basin mixer, with pop-up waste. This tough and easy to clean design has clear hot/cold identification that will not wear off and a special seal to protect the ceramic disc cartridge from harsh cleaning fluids. Water economy is optimised by CLICK technology. SPX hoses, built-in temperature stop and laminar flow design make this a safe and hygienic mixer.

B8262AA Nuastyle 21
1/2" basin pillar taps (pair). Robust and durable, featuring anti-vandal outlets, these taps are perfect for use in public buildings and schools. Ergonomic quarter-turn handles control a ceramic disc cartridge and a laminar flow internal design minimises the risk of bacterial growth. Dual hot/cold indices are included and each tap is fitted with a 5lpm regulator.

key
This key helps to quickly and accurately assess whether a particular product is suitable for your requirements. For a complete overview please see p35.
Sensorflow 21 is a complete range of sensor operated taps, showers, wcs and urinals for the modern washroom. The combination of aesthetics and practicality demanded by the 21st century washroom are exemplified by its contemporary design and state of the art electronics. With ultra hygienic ‘no-touch’ operation, efficient water management and mains or battery power, sensorflow 21 is the future of the automatic washroom.

Sensorflow 21
230mm tubular basin wall spout, with separate sensor.
A4183AA Mains Transformer
A4184AA Links Box
A4182AA Battery
(left, also see page 20).

Sensorflow 21 Compact
Stylish compact deck mounted basin fitting with built in sensor, suitable for pre-mixed water.
A4852AA Mains Transformer
A4853AA Links Box
A4851AA Battery
(right, also see page 19).

features and benefits
The demand for hygiene and performance is met by a range of hands-free electronic taps second to none. Remote sensors detect a users presence at the basin and control water flow to ensure that it is only released when required.

– ‘No touch’ operation improves the hygiene of the washroom.
– Controlled water release improves water economy.
– Power can be supplied by mains or battery (WCs = mains only).
– No moving external parts reduces the chances of vandalism.
– Available for basins, showers and urinals.

For complete technical information please call 0870 122 8822.

Sensorflow 21
230mm tubular basin wall spout, with separate sensor.
A4183AA Mains Transformer
A4184AA Links Box
A4182AA Battery
(left, also see page 20).

Sensorflow 21 Compact
Stylish compact deck mounted basin fitting with built in sensor, suitable for pre-mixed water.
A4852AA Mains Transformer
A4853AA Links Box
A4851AA Battery
(right, also see page 19).
Sensorflow 21 can be electronically joined together in a run of up to six fittings. Once the first fitting has been linked to the Sensorflow 21 transformer, subsequent fittings only need to be linked to the preceding fitting. Each fitting will still work independently from its own sensor via a solenoid, as shown in the diagram below.

**Sensor technology**

All Sensorflow 21 sensors incorporate the technology inside the sensor, which has the advantage of less working parts and takes less space. The sensor is factory set for run times and sensor detection distances (see list of settings opposite). Run times can be adjusted by a remote control purchased separately.

**Sensor settings**

Sensorflow 21 fittings come factory set to work at pre set sensing distances/zones and the length of rinse times. These settings can be changed for different requirements using a special remote control unit or by manual procedures.

The pre set factory settings are shown (right) together with the range of sensing distances and run times that can be set.

**Auto Cleanse feature**

Fittings and urinals can be set to automatically flush with fresh water if they haven’t been used in a given period. E.g. after 24 hours for a period of 15 seconds.

Sensor can be changed from proximity (water stops when user moves away) or Time Flow (water runs for pre set time).

**key information:**

- Each run of up to 6 units must have 1 mains box with the option of 1-5 link boxes. Link boxes come with 1.5 metre cables.
- Mains fittings come with a transformer.
- Link fittings do not have a transformer but are linked to the mains version.
- Battery mixers are run as solus installations and cannot be linked together.
- All Sensorflow 21 taps are supplied with 5 litres per minute laminar flow regulators for use on pressures greater than 1 bar, making them particularly economical with water.

**Flow straightener inserts**

Flow straightener inserts supplied separately (not fitted) for use on pressures less than 1 bar.

For complete technical information please call 0870 122 8822.

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**Sensorflow 21 System**

Sensorflow 21 can be electronically joined together in a run of up to six fittings. Once the first fitting has been linked to the Sensorflow 21 transformer, subsequent fittings only need to be linked to the preceding fitting. Each fitting will still work independently from its own sensor via a solenoid, as shown in the diagram below.
Sensorflow 21 Compact

Sensorflow 21 Compact is a new range of electronic basin fittings with an integral sensor in the spout itself. The downward pointing sensor is set to work in the normal hand washing position. This helps to eliminate false triggering from high visibility clothing associated with forward facing sensors.

Sensorflow 21 Compact
Stylish compact deck mounted basin fitting with built in sensor, suitable for pre-mixed water (above).
A4852AA Mains Transformer
A4853AA Links Box
A4851AA Battery

Sensorflow 21 Compact
Compact 230mm basin wall spout with built in sensor, suitable for pre-mixed water (above).
A4849AA Mains Transformer
A4850AA Links Box
A4848AA Battery

Sensorflow 21 Compact
Compact 150mm basin wall spout with built in sensor, suitable for pre-mixed water (above).
A4846AA Mains Transformer
A4847AA Links Box
A4845AA Battery

**key**

This key helps to quickly and accurately assess whether a particular product is suitable for your requirements. For a complete overview please see p35.

- factory
- general
- hospitals/healthcare
- hotel bathroom areas
- hotel public areas
- office
- retail
- schools
- sport and leisure
- anti-vandal
- part m
- water-saving

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Sensorflow 21 Compact
Stylish compact deck mounted basin fitting with built in sensor, suitable for pre-mixed water (above).
A4852AA Mains Transformer
A4853AA Links Box
A4851AA Battery
Sensorflow 21 for basins and showers

Sensorflow 21
Electronic tubular wall spout, with separate sensor. For pre-mixed water. 230mm spout projection (above, top).
A4183AA Mains Transformer
A4184AA Links Box
A4126AA Battery

Sensorflow 21
Electronic tubular wall spout, with separate sensor. For pre-mixed water. 150mm spout projection (above, bottom).
A4185AA Mains Transformer
A4186AA Links Box
A4125AA Battery

Sensorflow 21
Electronic one taphole basin spout, suitable for pre-mixed water. Anti-vandal and water economy properties make this outlet suitable for every building. Laminar flow internal design ensures water-borne bacteria are minimised. The sensor also shuts off water supply if obstructed (above, top).
A4171AA Mains Transformer
A4172AA Links Box
A4122AA Battery

Sensorflow 21
Smaller version of A4171AA. Compact electronic non-mixing basin spout (above, bottom).
A4798AA Mains Transformer
A4799AA Links Box
A4664AA Battery

Sensorflow 21
Electronic wall spout, with built-in sensor. For pre-mixed water. 150mm spout projection (above, top).
A4178AA Mains Transformer
A4179AA Links Box
A4125AA Battery

Sensorflow 21
Electronic one tap hole basin mixer with the ability to adjust temperature by top lever control, combined with the durability and hygiene benefits of electronic brassware (above, bottom).
A4176AA Mains Transformer
A4177AA Links Box
A4124AA Battery

Sensorflow 21
Shower sensor and solenoid suitable for pre-mixed water (arrowed).
A4185AA Mains Transformer
A4186AA Links Box
A4125AA Battery

key
This key helps to quickly and accurately assess whether a particular product is suitable for your requirements. For a complete overview please see p36-37.

factory
general
hospitals/healthcare
hotel bathroom areas
hotel public areas
office
retail
schools
sport and leisure
anti-vandal
part m
water-saving
Sensorflow 21
Panel mounted electronic WC flush control and cistern. The flush is activated by waving hand in front of sensor. Cistern, flush pipes, sensor and flush activation mechanism all included.

Side inlet:
- S356967 6 Litres
- S359967 4.5 Litres
- S360067 4 Litres

Bottom inlet, delay fill:
- S360467 4.5 Litres
- S360567 4 Litres

Sensorflow 21
Surface mounted electronic WC flush control, for use with pneumatic cisterns (e.g. where room incorporates a walk in duct with solid wall). The flush is activated by waving hand in front of sensor.

A4669AA Surface Mounted Electronic WC control

Sensorflow 21
Panel mounted electronic urinal flush control. Suitable for use with rim and rimless flushing urinals from mains or tank fed water supply.

A4854AA Mains Transformer
A4855AA Links Box
A4670AA Battery

Sensorflow 21
Surface mounted electronic urinal flush control. Suitable for use with rim and rimless flushing urinals from mains or tank fed water supply.

A4856AA Mains Transformer
A4857AA Links Box
A4671AA Battery

Box Rim Urinals
On base rim urinals water is supplied direct from the mains. Water is delivered through a check valve to the solenoid valve which opens for a few seconds.

Rimless Urinals
Rimless urinals cannot be fed direct from the mains. Water is supplied either from an ‘auto’ cistern or a storage tank.

Auto Cistern
Solenoid signals water to be released from mains into ‘auto’ cistern via a ‘pet cock’ which restricts the amount of water entering the tank. When tank is full it automatically flushes the urinal.

Storage Tank
Solenoid signals water to be released directly from the tank every time the sensor is activated.

installing sensorflow 21 urinals

key
This key helps to quickly and accurately assess whether a particular product is suitable for your requirements.

For a complete overview please see p37.
thermostatic brassware
Control is everything. Each fittings built in thermostat allows the user to set a specific temperature. Their control levers guarantee the right amount of water is delivered at the right temperature. Safely and precisely.

features and benefits
When the safe delivery of water at a specific temperature is paramount, the thermostatically controlled mixer represents the ultimate. A predetermined maximum temperature reduces chances of scalding and saves water wasted whilst establishing a comfortable temperature.

- Prevents scalding by maximum temperature control.
- Fully Part M compliant.
- Single lever operation makes use quick and simple even when wet.
- Can be operated with a closed fist by the physically impaired.
- Clear hot/cold indices that will not wear off through use or cleaning.

For complete technical information please call 0870 122 8822

A4128AA
Contour 21
Wall mounted thermostatic shower mixer, exposed (left, also see page p27).

A4131AA
Contour 21
Thermostatic monoblock basin mixer, without pop-up waste. Single control lever for simple operation (right, also see page 26).
thermostatic brassware: the complete range

A4135AA Contour 21
Wall mounted thermostatic bath mixer. A single lever provides sequential control of water flow and temperature (above). Also available
A4132AA Contour 21 Thermostatic monobloc basin mixer, with pop-up waste.

A4131AA Contour 21
Thermostatic monobloc basin mixer, without pop-up waste. Part M compliance is achieved thanks to its single sequential control lever (above).

A4130AA Contour 21
Exposed thermostatic shower mixer, with 120mm lever. A safety temperature stop is built into the mixer and the single lever provides sequential flow and temperature control (above). More information on p5.

A4127AA Contour 21
Wall mounted thermostatic shower mixer, with lever handles. A unique thermal disinfection facility helps to reduce the risk of bacteria infection (above, bottom).

A4128AA Contour 21
Wall mounted thermostatic bath/shower mixer, with lever handles. A unique thermal disinfection facility helps to reduce the risk of bacteria infection (above).

A4129AA Contour 21
Built in thermostatic shower mixer, with 120mm lever. A safety temperature stop is built into the mixer and the single lever provides sequential flow and temperature control (above).

key
This key helps to quickly and accurately assess whether a particular product is suitable for your requirements. For a complete overview please see p38.

factory general hospitals/healthcare hotel bedroom areas hotel public areas office retail schools sport and leisure anti-vandal part m water-saving

direction of water flow

More information on p5.
fixed showerheads

A very flexible range of durable fixed shower heads for use in a number of different applications. The range includes an anti-ligature head for secure premises and heads for fixing onto panels or solid walls. Each head incorporates a water regulator to ensure efficient use of water.
push button brassware

The simplicity of their use and the intrinsic toughness of their design is coupled with real elegance in the Avon and Contour 21 push button range of mixers, pillar taps and showers.

Avon 21
Push button basin mixer, without pop-up waste. The choice in washrooms where durability, water economy and temperature control is paramount (left, also see page 30).

Avon 21
Push button shower mixer, for fixed/overhead showerhead (right, also see page 31).

features and benefits

Often the durability of a fitting must be balanced with its water saving characteristics. Push button taps require no such compromise. It has no handle, making it very robust, and pushing the button starts water flowing for a pre-set period only.

– Anti-vandal design minimises maintenance and downtime costs.
– Can be operated with a closed fist, suitable for Part M use.

For complete technical information please call 0870 122 8822.
push button brassware: the complete range

**B8263AA Avon 21**
Push button basin mixer, without pop-up waste. The choice for washrooms where durability, water economy and temperature control is paramount. This anti-vandal outlet has a laminar flow internal design and features the EasyFix installation system.

**B8267AA Avon 21**
Push button 1/2'' basin pillar taps (pair), with dual hot/cold indices.

**B8246AA Avon 21**
Push button shower mixer, with top water outlet.

**B8266AA Avon 21**
Built in push button urinal flush/shower valve, non-mixing.

**B8265AA Avon 21**
Built in push button shower mixer.

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**key**

This key helps to quickly and accurately assess whether a particular product is suitable for your requirements.

For a complete overview please see p39.

factory
general
hospitals/healthcare
hotel bathroom areas
hotel public areas
office

retail
schools
sport and leisure
anti-vandal
part m
water-saving
for every taste a style, for every need a solution.

choosing the appropriate brassware for a project is a process of aligning design, performance and budget, with the demands of a particular client.

The product selection guide on the following four pages will help you to strike this balance.

Choosing brassware based on the function of your clients building is straightforward; the fittings most suitable for use within nine building types are identified and indicated on a selection matrix by colour-coded dots.

Alternatively, if you prefer to select a fitting based on it’s key features, the guide provides an at a glance, colour-coded, reference for every product.

Simplify, specify.

---

**Single lever mixers and pillar taps**

(see p10-13)

<table>
<thead>
<tr>
<th>taps</th>
<th>description</th>
<th>specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8262AA</td>
<td>Nuastyle 21 1/2&quot; basin pillar taps (pair)</td>
<td></td>
</tr>
<tr>
<td>B8264AA</td>
<td>Piccolo 21 Single lever monoblock basin mixer, without pop-up waste, 5lpm†</td>
<td></td>
</tr>
<tr>
<td>B8261AA</td>
<td>Piccolo 21 Single lever monoblock basin mixer, with pop-up waste, 5lpm†</td>
<td></td>
</tr>
</tbody>
</table>

**Electronic brassware**

(see p14-23)

| Sensorflow 21 Compact 150mm non-mixing basin wall spout. N.B. Minimum duct allowance 125mm, A4846AA* 9rpm A4847AA** A4845AA*** |               |
| Sensorflow 21 Compact 230mm non-mixing basin wall spout. N.B. Minimum duct allowance 125mm, A4848AA* 9rpm A4849AA** A4845AA*** |               |
| Sensorflow 21 Compact Deck mounted non-mixing basin spout, A4852AA* 9rpm A4853AA** A4851AA*** |               |

---

key

factory  general  hospitals/healthcare  hotel bathroom areas  hotel public areas  office  retail  schools  sport and leisure  anti-vandal  part m  water-saving

---

*A Mains Transformer   **Link box   ***Battery

† These fittings are fitted with a 5lpm laminar flow regulator. Flow straightener supplied for low water pressure.

†† These fittings are fitted with an 8lpm laminar flow regulator.

125 recommended minimum duct/clearance depth.

Minimum radii 40mm on flexible tail pipe - 271mm long

5lpm† 8lpm††
### electronic brassware
(see p14-23)

**Sensorflow 21**
- Electronic non-mixing basin spout:
  - A417AAA* 5lpm
  - A4172AAA**
  - A4122AAA***

**Sensorflow 21**
- Compact electronic non-mixing basin spout:
  - A4798AAA* 5lpm
  - A4798AAA**
  - A4664AAA***

**Sensorflow 21**
- 230mm tubular non-mixing basin wall spout, with separate sensor:
  - A4183AA* 5lpm
  - A4184AAA**
  - A4182AAA***

**Sensorflow 21**
- 150mm tubular non-mixing basin wall spout, with separate sensor:
  - A4183AA* 5lpm
  - A4181AAA**
  - A4128AAA***

**Sensorflow 21**
- Non-mixing basin wall spout, with built-in sensor:
  - A4178AAA* 5lpm
  - A4179AAA**
  - A4125AAA***

**Sensorflow 21**
- Monobloc basin mixer with temperature adjustment:
  - A4178AAA* 5lpm
  - A4177AAA**
  - A4124AAA***

---

### electronic brassware
(see p14-23)

**For Showers:**
- Sensorflow 21 Shower valve and sensor:
  - A4165AAA*
  - A4168AAA**
  - A4168AAA***

**For Urinals:**
- Sensorflow 21 Urinal flush valve panel mounted:
  - A4854AAA*
  - A4855AAA**
  - A4855AAA***

---

For complete technical information please call 0870 122 8822

† These fittings are fitted with a 5lpm laminar flow regulator. Flow straightener supplied for low water pressure.

†† These fittings are fitted with an 8lpm laminar flow regulator.
### thermostatic brassware
(see p24-29)

<table>
<thead>
<tr>
<th>taps</th>
<th>description</th>
<th>specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A4135AA</strong></td>
<td>Contour 21</td>
<td>Wall mounted</td>
</tr>
<tr>
<td></td>
<td>thermostatic</td>
<td>bath mixer.*</td>
</tr>
<tr>
<td><strong>A4131AA</strong></td>
<td>Contour 21</td>
<td>Thermostatic</td>
</tr>
<tr>
<td></td>
<td>monoblock basin mixer, without</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pop-up waste.**</td>
<td>copper tails.</td>
</tr>
<tr>
<td><strong>A4169AA</strong></td>
<td>Contour 21</td>
<td>Wall mounted</td>
</tr>
<tr>
<td></td>
<td>thermostatic</td>
<td>bath/</td>
</tr>
<tr>
<td></td>
<td>shower mixer, with</td>
<td>lever</td>
</tr>
<tr>
<td></td>
<td>lever handles.*</td>
<td>handles.*</td>
</tr>
<tr>
<td><strong>A4130AA</strong></td>
<td>Contour 21</td>
<td>Exposed</td>
</tr>
<tr>
<td></td>
<td>thermostatic</td>
<td>shower mixer,</td>
</tr>
<tr>
<td></td>
<td>with 120mm lever.*</td>
<td>with lever</td>
</tr>
<tr>
<td><strong>A4128AA</strong></td>
<td>Contour 21</td>
<td>Wall mounted</td>
</tr>
<tr>
<td></td>
<td>thermostatic</td>
<td>bath/shower</td>
</tr>
<tr>
<td></td>
<td>mixer, with lever handles.*</td>
<td>mixer, with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lever</td>
</tr>
<tr>
<td><strong>A4129AA</strong></td>
<td>Contour 21</td>
<td>Built in</td>
</tr>
<tr>
<td></td>
<td>thermostatic</td>
<td>thermostatic</td>
</tr>
<tr>
<td></td>
<td>shower mixer, with</td>
<td>shower mixer,</td>
</tr>
<tr>
<td></td>
<td>120mm lever.**</td>
<td>with lever</td>
</tr>
<tr>
<td></td>
<td></td>
<td>handles.*</td>
</tr>
</tbody>
</table>

*Panel fixing requires an additional fixing kit and escutcheon as follows – S7839AA Panel Fixing Kit and B8485AA Escutcheons.

For complete technical information please call 0870 122 8822

### push button brassware
(see p30-33)

<table>
<thead>
<tr>
<th>taps</th>
<th>description</th>
<th>specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B8263AA</strong></td>
<td>Avon 21</td>
<td>Push button</td>
</tr>
<tr>
<td></td>
<td>basin mixer, without</td>
<td>pop-up waste.</td>
</tr>
<tr>
<td></td>
<td>8pm†</td>
<td></td>
</tr>
<tr>
<td><strong>B8266AA</strong></td>
<td>Avon 21</td>
<td>Push button</td>
</tr>
<tr>
<td></td>
<td>urinal flush/shower valve,</td>
<td>non-mixing.</td>
</tr>
<tr>
<td></td>
<td>8pm†</td>
<td></td>
</tr>
<tr>
<td><strong>B8263AA</strong></td>
<td>Avon 21</td>
<td>Push button</td>
</tr>
<tr>
<td></td>
<td>basin mixer, without</td>
<td>pop-up waste.</td>
</tr>
<tr>
<td></td>
<td>8pm†</td>
<td></td>
</tr>
<tr>
<td><strong>B8264AA</strong></td>
<td>Avon 21</td>
<td>Push button</td>
</tr>
<tr>
<td></td>
<td>shower mixer, with top</td>
<td>water outlet.</td>
</tr>
<tr>
<td></td>
<td>water outlet.</td>
<td></td>
</tr>
<tr>
<td><strong>B8266AA</strong></td>
<td>Avon 21</td>
<td>Push button</td>
</tr>
<tr>
<td></td>
<td>urinal flush/shower valve,</td>
<td>non-mixing.</td>
</tr>
<tr>
<td></td>
<td>8pm†</td>
<td></td>
</tr>
<tr>
<td><strong>B8265AA</strong></td>
<td>Avon 21</td>
<td>Built in push</td>
</tr>
<tr>
<td></td>
<td>button shower mixer, with</td>
<td>pop-up valve.</td>
</tr>
<tr>
<td></td>
<td>top water outlet.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>B8264AA</strong></td>
<td>Avon 21</td>
</tr>
<tr>
<td></td>
<td>Avon 21</td>
<td>Built in push</td>
</tr>
<tr>
<td></td>
<td>button shower mixer, with</td>
<td>shower mixer,</td>
</tr>
<tr>
<td></td>
<td>top water outlet.</td>
<td></td>
</tr>
</tbody>
</table>

*These fittings are fitted with a 8pm laminar flow regulator. Flow straightener supplied for low water pressure.

"These fittings are fitted with an 8pm laminar flow regulator.
guarantee

5 years
on taps and mixers, toilet seats
and cistern fittings

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Disability Rights Commission
www.drc-gb.org

Direct Gov
www.direct.gov.uk

technical helpline
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