



## 0812 Tapware

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## 00 Design principles

### 0.01 Main considerations

It is a requirement to undertake the [00 PLANNING AND DESIGN/0001R - DESIGN REFERENCE](#) and [GLOSSARY OF TERMS](#) information into all aspects of design, detailing and delivery when developing the content here within. Clear demonstration of adherence to these requirements is part of the services and will be called upon at key points in the project and during at the discretion of the Department of Education (DoE).

### 0.02 Policies and regulations

GUIDE NOTE: [Refer to 00 PLANNING AND DESIGN/0001C DESIGN CHECKLIST - HYDRAULIC](#)

In accordance with the NSW Government Resource Efficiency Policy, all fixtures and fittings must be at least the average WELS star rating by product type. Where WELS rating is not available, use the alternative WaterMark rating scheme.

All new water-using appliances must be at least 0.5 stars above the average Water Efficiency Labelling and Standards (WELS) star rating by product type, except toilets and urinals, which must be purchased at the average WELS star rating.

## Specification

### 01 General

As per current NATSPEC except as follows:

Appliances and equipment purchased in the following categories with star ratings under the WELS scheme will be at least:

- showerheads – 3 stars (>7.5 but <=9.0 l/min)
- toilets - 4 stars
- urinals – 5 stars
- dishwashers – 5 stars
- taps and flow controllers – 5 stars.

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## 02 Product

As per current NATSPEC except as follows:

### 2.1 Products

#### Thermostatic mixing valves

GUIDE NOTE: Delete subclauses "General" and "Control" nominated in NATSPEC building template/worksection and include the following:

GUIDE NOTE: Insert project specific locations. Refer to Educational Facilities Standards and Guidelines and Supplements.

Location/s:

#### Type

Valve mixing hot and cold water, regulating water temperature with single hand control, capable of delivering water at the temperature of either of the supply system and at any temperature in between, and suitable for controlling single or multiple outlets as required by the installation. Incorporate the following:

- Thermostatic element.
- A temperature sensitive automatic control that maintains temperature at the pre-selected setting and rapidly shuts down the flow if either system fails, or if the normal discharge of water temperature of water is exceeded.
- A water temperature control device that can only be altered by a trained authorised person.
- Hot water flush facility

#### Standards

Provided, installed and set in line with the requirements of the current AS.

#### Manual

The manufacturer of the thermostatic mixing valve must provide a printed technical manual for installation, commissioning and maintenance for thermostatic mixing valves. The manual must be applicable for installations in NSW.

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Hand one copy of the above manual to the Principal's Authorised Person / Principal's Representative.

## Installation

- Thermostatic mixing valves complete with stainless steel enclosure/box are to be recessed into the wall in a location that is inaccessible to pupils.
- All in accordance with the manufacturers printed technical manual for installation, commissioning and maintenance for thermostatic mixing valves.
- A licensed plumber who has undertaken T.A.F.E. training in thermostatic mixing valves must install thermostatic mixing.
- To effectively control microbial hazards during installation work to be in accordance with AS 3666
- Water quality conditions must be checked to be sure that they do not exceed the limits listed in AS 3500.4

## Enclosure

GUIDE NOTE: Manufacturers/suppliers of Thermostatic mixing valves can generally supply lockable compatible stainless-steel enclosures/boxes with the mixing valves.

Provide a proprietary lockable stainless-steel enclosure/box complete with each mixing valve or below joinery.

- Type: Recessed lockable stainless enclosure/box complete with stainless steel brackets and fasteners.
- Equal to Enware Aquablend 1500 thermostatic mixing valve complete with integrated thermal flush within 350mm square stainless-steel recessed box (ATMS700-350) and key lockable stainless-steel hinged cover (ATMSHL-350)

## Commissioning

When the installation is complete the valve must be tested and commissioned in accordance with the instructions in the printed technical manual for installation, commissioning and maintenance for thermostatic mixing valves.

GUIDE NOTE: Refer to [00 PLANNING AND DESIGN/0001C DESIGN CHECKLIST - HYDRAULIC](#) for more information on hydraulics.

## 03 Execution

As per current NATSPEC.

## 04 Selections

As per current NATSPEC except as follows:

GUIDE NOTE: Delete subclause "tapware" nominated in NATSPEC building template / worksection and replace with the following text

GUIDE NOTE: Remove fixtures not required. Insert project specific locations. Refer to Educational Facilities Standards and Guidelines. Include appropriate information (shown below) in the project specification "Isolating valves schedule" and Accessories Schedule.

### 4.0 Tapware - Fittings and Accessories

#### Inclusions

Accessories such as taps, valves and outlets shall include but not be limited to those scheduled below for specific locations or fixtures.

#### Fixture Schedule

**Table 01: Basin Tapware (Type 1)**

Requirements	
<b>Location</b>	PS Toilets Boys + Girls (PS Communal Hall) PS Bulk Store (General Assistant) HS Materials Workshop HS Toilets Boys + Girls
<b>Type</b>	Pillar cock, Soft touch push button, Aerator
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole, Cold water only
<b>Isolation valve</b>	Cold
<b>Colour Indicator on Handle</b>	Blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring



Requirements	
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	6 star

**Table 02: Basin Tapware (Type 2)**

Requirements	
<b>Location</b>	PS / HS Staff Toilets Male + Female
<b>Type</b>	Single lever basin mixer, brass spindle, PEX flexible inlet hoses.
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole
<b>Isolation valve</b>	Warm + cold water
<b>Colour Indicator on Handle</b>	Yellow + blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 03: Basin Tapware (Type 3)**

Requirements	
<b>Location</b>	HS / PS Access Basins HS Domestic kitchen Canteen
<b>Type</b>	Single lever basin mixer, Extended handle nominal 165mm, Brass spindle, PEX flexible inlet hoses.
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole
<b>Isolation valve</b>	Warm + cold water
<b>Colour Indicator on Handle</b>	Yellow + Blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star
<b>Compliance</b>	AS1428.1

**Table 04: Basin Tapware (Type 4)**

Requirements	
<b>Location</b>	PS Student SSP
<b>Type</b>	Single lever basin mixer, extended handle nominal 165mm, brass spindle, PEX flexible inlet hoses.
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole
<b>Isolation valve</b>	Warm + cold water
<b>Colour Indicator on Handle</b>	Yellow + Blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star
<b>Compliance</b>	AS1428.1

**Table 05: Basin Tapware (Type 5)**

Requirements	
<b>Location</b>	PS / HS Staff, Community Clinic
<b>Type</b>	Single lever basin mixer, brass spindle, PEX flexible inlet hoses.
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole or 3 tap hole
<b>Isolation valve</b>	Warm + cold water
<b>Colour Indicator on Handle</b>	Yellow + Blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 06: Basin Tapware (Type 6 - hands free)**

Requirements	
<b>Location</b>	PS / HS Student, PS / HS Staff, PS / HS Access, HS Laboratory, HS Food Tech
<b>Type</b>	Hands free hob or wall mounted sensor tap, single temperature, auto shut off, mains powered, PEX flexible inlet hose
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole
<b>Isolation valve</b>	Cold or premixed warm water
<b>Colour Indicator on Handle</b>	Blue or Yellow + Blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	6 star

**Table 07: Wash Trough Tapware**

Requirements	
<b>Location</b>	PS / HS Toilets Boys + Girls
<b>Type</b>	Pillar cock, Soft touch push button, Aerator
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole
<b>Isolation valve</b>	Cold water
<b>Colour Indicator on Handle</b>	Blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	6 star

**Table 08: Bucket Sink Tapware**

Requirements	
<b>Location</b>	HS / PS Cleaners Distributed Store HS / PS Cleaning Supplies Store HS Wood + metal workshops HS Botany
<b>Type</b>	Bib cock, aerator, school pattern handle
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole
<b>Isolation valve</b>	Cold water
<b>Colour Indicator on Handle</b>	Blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N / A

**Table 09: Canteen Sink Tapware**

Requirements	
<b>Location</b>	HS / PS Canteen
<b>Type</b>	Single lever basin mixer, extended lever handle 165mm approx., brass spindle, PEX flexible inlet hoses,
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole
<b>Isolation valve</b>	Hot + cold water
<b>Colour Indicator on Handle</b>	Red + Blue
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 10: Access shower Tapware**

Requirement	
<b>Location</b>	HS / PS Access Shower HS / PS Access Shower / Toilet HS / PS Access Shower / Toilet / Change
<b>Type tapware</b>	Single lever shower mixer, brass spindle
<b>Type Shower + Rail</b>	Access hand shower with handset, 1500mm long reinforced nylon hose and 900mm long heavy-duty stainless-steel grab rail with sliding wall bracket
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Warm + cold water. Warm water supply via remote tmv sensor
<b>Colour Indicator on Handle</b>	Yellow + Blue
<b>Installation and support</b>	Secure fix.
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	4 star
<b>AS Compliance</b>	AS1428.1

**Table 11: Staff Shower Tapware**

Requirements	
<b>Location</b>	HS / PS Staff Shower male / female
<b>Type tapware</b>	Recessed taps with vandal proof school pattern handles
<b>Type Shower Rose</b>	All directional shower arm and rose, internal flow regulator
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Warm + cold water. Warm water supply via remote tmv sensor
<b>Colour Indicator on Handle</b>	Yellow + Blue
<b>Installation and support</b>	Secure fix.
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	4 star

**Table 12: Student Shower Tapware (excludes access showers)**

Requirements	
<b>Location</b>	HS / PS Student Shower boys/girls
<b>Type tapware</b>	Recessed taps with vandal proof school pattern handles
<b>Type Shower Rose</b>	Vandal resistant shower rose
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Warm + cold water. Warm water supply via remote tmv sensor
<b>Colour Indicator on Handle</b>	Yellow + Blue
<b>Installation and support</b>	Secure fix.
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	4 star

**Table 13: Water Closet Assembly and Urinal**

Requirements	
<b>Location</b>	HS / PS Student / Staff Male / Female
<b>Type</b>	Right angle school pattern handle, Jumper valve cistern cock
<b>Finish</b>	Bright Chrome Plate
<b>Outlet type</b>	1 tap hole
<b>Isolation valve</b>	Cold water
<b>Installation and support</b>	Secure fix with back nut, basin spacer ring
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N / A

**Table 14: Single Laundry Trough**

Requirements	
<b>Location</b>	HS Visual Art GLS
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Pillar cock, aerator, school pattern handle
<b>Outlet type</b>	1 tap hole, Cold water only

Requirements	
Isolation valve	Cold water
Installation and support	Secure fix with back nut, basin spacer ring
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**Table 15: Double Laundry Trough**

Requirements	
Location	HS Visual Arts Workshop HS Materials Workshop
Finish	Bright Chrome Plate
Type	2 x bibcock, aerator, school pattern handle. One tap each bowl
Outlet type	1 tap hole, Cold water only
Isolation valve	Cold water
Installation and support	Secure fix with back nut, basin spacer ring
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**Table 16: HS Visual Art Workshop + Materials Workshop**

Requirements	
Location	HS Visual Arts Workshop HS Materials Workshop
Finish	Bright Chrome Plate
Type	Hob mounted sink tap, school pattern jumper valve control, fixed gooseneck outlet, 200mm projection, height 230 approx. above base, two tapered anti-rotation lugs, anti-vandal aerator incl 6l/min flow control  Provide one Right hand tap + 1 left hand tap. Tap handles are to face outwards towards workshop space.
Outlet type	1 tap hole, Cold water only
Isolation valve	Cold water
Installation and support	Secure fix with back nut, basin spacer ring
Vandal Resistant Construction	Yes. Robust. Tamper proof.

Requirements	
<b>WELS rating</b>	5 star

**Table 17: HS Semi Commercial Kitchen**

Requirements	
<b>Location</b>	HS Semi Commercial kitchen stainless steel bench
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Hob mounted ultra-rinse food service unit with exposed lever mixer assembly, 220mm reach pot filler
<b>Outlet type</b>	2 tap holes
<b>Isolation valve</b>	Hot + Cold water
<b>Installation and support</b>	Secure fix
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 18: HS Laundry Single Trough**

Requirements	
<b>Location</b>	HS Laundry single trough
<b>Finish</b>	Bright Chrome Plate
<b>Type - tapware</b>	Flange conversion unit, vandal resistant school pattern handles
<b>Type - Spout</b>	200mm swivel gooseneck outlet, aerated spout, wall mounted
<b>Outlet type</b>	2 tap holes
<b>Isolation valve</b>	Hot + Cold 15mm
<b>Installation and support</b>	Secure fix to wall
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star



**Table 19: Dishwasher**

Requirements	
<b>Location</b>	PS / HS Kitchen Staff HS Kitchen Prep HS Science Prep HS Kitchen Domestic + Semi-Commercial
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Right angle school pattern handle, jumper valve cistern cock, school pattern handle and button
<b>Isolation valve</b>	Hot + Cold water as per appliance requirement
<b>Installation and support</b>	Secure fix
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N/A

**Table 20: Boiling Water Unit - Staff + Canteen**

Requirements	
<b>Location</b>	HS / PS Canteen HS / PS Staff
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Right angle school pattern handle, jumper valve cistern cock, school pattern handle and button, M+F 15mm chrome check valve
<b>Valve</b>	Cold 15mm right angled stop valve and union
<b>Installation and support</b>	Secure fix
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N/A

**Table 21: Laundry Washing Machine**

Requirements	
<b>Location</b>	HS / PS Laundry
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Washing machine cock, school pattern handles
<b>Valve</b>	Hot + Cold water

Requirements	
<b>Installation and support</b>	Secure fix
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N/A

**Table 22: Hand Held Eye Wash**

Requirements	
<b>Location</b>	HS Outdoor Covered Work Area at Wood/Metal Workshop
<b>Finish</b>	Bright Chrome Plate, SS wall bracket
<b>Type</b>	Hand held eyewash and body spray
<b>Valve</b>	Stay open ball valve during operation
<b>Installation and support</b>	Wall mounted on bracket
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N/A
<b>Compliance</b>	ANSI Z358.1, AS4775 as a primary eyewash station

**Table 23: Safety Shower**

Requirements	
<b>Location</b>	HS Science Laboratory
<b>Finish</b>	Stainless steel
<b>Type</b>	Combination free standing emergency shower + eyewash station, yellow epoxy coated activation pull rod + push handle, stay open ball valves
<b>Outlet type</b>	200mm shower head, 2 x aerated eye wash outlets
<b>Valve</b>	Stay open ball valve during operation
<b>Installation and support</b>	Wall mounted on bracket
<b>Connection</b>	Drinking water 25mm Waster outlet 38mm Min 210 kPa pressure Min 93 l/min flow rate
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.

Requirements	
WELS rating	N/A
Compliance	ANSI Z358.1, AS4775 as a primary eyewash station

**Table 24: Fume Cupboard**

Requirements	
Location	HS Science Laboratory
Finish	Bright Chrome Plate, or White Powdercoat
Type	Bench mounted Laboratory water outlet with tube nozzle, remote laboratory control valve, stainless steel flexible hose
Valve	Stay open ball valve during operation
Installation and support	Secure fix
Connection	Non-drinking water 15mm
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**Table 25: Gas Turret**

Requirements	
Location	HS Science Laboratory
Finish	Bright Chrome Plate
Type	Type 40 bench mounted anti-vandal 2-way right angle (90 deg) gas turret, non-return valve, anti-rotation lugs
Installation and support	Anti-rotation lugs
Vandal Resistant Construction	Yes. Robust. Tamper proof.
Description	Anti-vandal double gas turret, with right angle bend in plug cock and non-return valve in tail. Yellow gas indicator recessed into top of turret. Two tapered anti rotation lugs in base, with plug cocks and tail to be silver soldered. Plug cock to accept 10mm tube. Turrets to have individual batch numbers in accordance with AGA compliance.

**Table 26: Internal Hose Cock**

Requirements	
Location	HS / PS

Requirements	
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Key handle operated, 20mm hose cock Provide one loose key for each internal hose cock installed
<b>Size</b>	25mm hose thread
<b>Isolation valve</b>	N/A
<b>Installation and support</b>	Mounting height 450mm above finished surface or as directed
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N/A

**Table 27: External Hose Cock**

Requirements	
<b>Location</b>	HS/PS
<b>Finish</b>	Brass
<b>Type</b>	Key handle operated, 20mm hose cock, Provide one loose key for each external hose cock installed
<b>Size</b>	25mm hose thread
<b>Isolation valve</b>	N/A
<b>Installation and support</b>	Each unit to consist of 20mm copper riser with a back plated elbow to be fixed to the wall with 3 x 20mm brass screws, screwed into 20mm x 6mm expanding plastic plug. Where not against a wall, the back plated elbow to be fixed with gal steel screw bolts and nuts to a 50 x 25mm fixing stake. The hose cock standpipe to have a 300mm square and 100mm thick concrete base surround.
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N/A

**Table 28: Chilled Drinking Water Unit**

Requirements	
<b>Location</b>	HS/PS Staff HS/PS Drinking Trough
	Guide Note: only to be provided west of 33-degree isotherm
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Right angle school pattern handle, jumper valve cistern cock, school pattern handle and button
<b>Connection</b>	15mm
<b>Isolation Valve</b>	N / A
<b>Installation and support</b>	Secure fix
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	N / A

**Table 29: Bottle Filler in Drinking / Wash Trough without lockable cover/ Hob mount**

Requirements	
<b>Location</b>	HS / PS Drinking / Wash Trough without lockable cover Hob mount option New + retrofit
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Hob mounted gooseneck fixed spout bottle filler, school pattern cam action auto shut off control, height 170mm above hob, projection 150mm Anti-vandal aerator, 2 tapered anti-rotation lugs
<b>Isolation Valve</b>	Cold Water
<b>Installation and support</b>	Hob mount. Replace end tap with bottle filler in Wash Trough
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>Flow rate</b>	8 l/min flow for quick fill
<b>WELS rating</b>	N / A

**Table 30: Bottle Filler in Drinking / Wash Trough with lockable cover / Hob mount**

Requirements	
<b>Location</b>	HS / PS Drinking / Wash Trough with lockable cover Hob mount option New + retrofit
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Heavy duty upright bottle filler Outlet 90mm from surface 35-degree laminar flow delivery Oversize dome push button activation button
<b>Isolation Valve</b>	Cold Water
<b>Installation and support</b>	Hob mount. Replace end tap with bottle filler in Wash Trough
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>Flow rate</b>	5 l/min flow
<b>WELS rating</b>	N/A

**Table 31: Bottle Filler over Drinking Trough / Wall mount / Retrofit**

Requirements	
<b>Location</b>	HS / PS Drinking / Wash Trough with lockable cover Wall mount option over drinking / wash trough Retrofit application
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Heavy duty wall mount bottle filler 95mm outlet projection 35-degree laminar flow delivery Oversize auto shut off, easy push, activation button
<b>Isolation Valve</b>	Cold Water
<b>Installation and support</b>	Wall mount
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>Flow rate</b>	5 l/min flow
<b>WELS rating</b>	N/A

**Table 32: Bottle Filler in Drinking Trough – Hob mount / New and Retrofit**

Requirements	
<b>Location</b>	HS / PS Drinking / Wash Trough with lockable cover Wall mount option over drinking / wash trough New or Retrofit application
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Heavy duty bottle filler Activation: Drink bottle pushed against button (no touch button) or lever Flow regulator, auto shut off, vandal resistant handle
<b>Isolation Valve</b>	Cold Water
<b>Installation and support</b>	Hob mount or replace end bubbler with bottle filler
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>Flow rate</b>	2- 8 l/min flow
<b>WELS rating</b>	N / A

**Table 33: Drinking Fountain**

Requirements	
<b>Location</b>	HS / PS
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Bubbler with lever or cam action Lever preferred for PS, Cam preferred for HS Integral guard Flow regulator Vandal resistant handle
<b>Isolation Valve</b>	Cold Water
<b>Installation and support</b>	Wall mount
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>Flow rate</b>	2-8 l/min flow
<b>WELS rating</b>	N / A

**Table 34: Gravity Pressure Tank**

Requirements	
<b>Location</b>	HS Animal Space
<b>Finish</b>	Bright Chrome Plate
<b>Type</b>	Right angle, school pattern, jumper valve cistern cock with school pattern handle and button
<b>Isolation Valve</b>	Cold Water 20mm
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>Flow rate</b>	5 l/min
<b>WELS rating</b>	N/A

## 4.02 Items with Integrated Sanitary Fixtures installed by Contractor

Tapware schedule for items supplied by DoE and installed by contractor.

GUIDE NOTE: Remove fixtures not required. Insert specific job locations. Refer to [05 INTERIOR/0572 MISCELLANEOUS FURNITURE](#). Ensure the above clause is included in the “Water Services” section of the project specification (Tender Document).

Requirement: Supply, install, test and commission all water services fittings listed in this subclause all in accordance with the requirements of [08 HYDRAULIC/0812 TAPWARE](#).

**Table 35: B-05 Bench Cupboard | PS + HS Staff Areas**

Requirements	
<b>Location</b>	HS / PS Staff Room adjoining Staff Annex HS / PS Office Workroom HS / PS Library Administration
<b>Description</b>	B05 Bench cupboard 1200mm, 3 tap hole sink
<b>Type</b>	Bench mounted forward bowl jumper valve sink set Spout with 120-degree restricted swivel Vandal resistant aerator Vandal resistant school pattern handles
<b>Finish</b>	Bright Chrome Plate



Requirements	
Isolation valve	Hot + Cold water
Colour Indicator on Handle	Red + Blue
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**Table 36: HS / PS GLS with Sink**

Requirements	
Location	HS / PS GLS with Sink
Description	B05 Bench cupboard 1200mm 1 tap hole sink
Type	Pillar cock Vandal resistant aerator Vandal resistant school pattern handles
Finish	Bright Chrome Plate
Isolation valve	Cold water
Colour Indicator on Handle	Blue
Installation	Outlet clearances above the rim of the sink must comply with statutory regulations. If required include an adaptor within the fittings to raise the outlets to the required height
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**Table 37: HS Science Learning Space**

Requirements	
Location	HS Science Learning Space
Description	B06 Bench Cupboard Sink (cold water only)
Type	Type 16 1-way school laboratory water tap Fixed gooseneck jumper valve outlet 200mm reach spout Vandal resistant tube nozzle 6 l/min flow control 2 tapered anti rotation lugs at base

Requirements	
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Cold water isolation valve on master control
<b>Colour Indicator on Handle</b>	Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 38: PS Practical Activity Area**

Requirements	
<b>Location</b>	PS Practical Activity Area
<b>Description</b>	B21 Bench Cupboard with Technology Top, Bench, SK50 Craft Trough (cold water only)
<b>Type</b>	Type 16 1-way school laboratory water tap with Fixed gooseneck jumper valve outlet 200mm reach spout Vandal resistant tube nozzle 6 l/min flow control 2 tapered anti-rotation lugs at base
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Cold water
<b>Colour Indicator on Handle</b>	Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 39: HS Science**

Requirements	
<b>Location</b>	HS GLS with Science demonstration bench HS Science Preparation
<b>Description</b>	B21 Bench Cupboard with top, bench technology SK32 Sink (cold water only)

Requirements	
<b>Type</b>	Type 8 2-way school laboratory bench mounted water tap Upper: Fixed gooseneck 200mm reach spout Vandal resistant aerator Lower: Fixed bib tap outlet, 120mm reach spout Vandal resistant tube nozzle Both: jumper valve operation School pattern anti vandal handles
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Cold water
<b>Colour Indicator on Handle</b>	Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 40: HS Kitchen, Science, HS / PS Staff Lounge**

Requirements	
<b>Location</b>	HS Kitchen Domestic HS Kitchen Semi Commercial HS Science Preparation HS / PS Staff Lounge
<b>Description</b>	B-21 Bench Cupboard with top, bench technology SK-34 Sink (hot + cold water)
<b>Type</b>	Bench mounted forward bowl sink set Vandal resistant school pattern handles Vandal resistant aerated spout 120-degree restricted swivel
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Hot (or warm) + Cold
<b>Colour Indicator on Handle</b>	Red (or yellow) + Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 41: PAA**

Requirements	
<b>Location</b>	PAA IO/IS/P PAA BD/CD/ED Shared PAA IP/IS/P
<b>Description</b>	B-21 Bench Cupboard with top, bench technology SK-34 sink (cold water)
<b>Type</b>	Lever action adjustable sink set Vandal resistant aerated spout
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Cold water key operated isolation valve
<b>Colour Indicator on Handle</b>	Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 42: HS Kitchen, Science, Printing / Preparation, HS Darkroom**

Requirements	
<b>Location</b>	HS Kitchen Domestic HS Kitchen Semi Commercial HS Science Preparation HS / PS Printing / Preparation HS Darkroom
<b>Description</b>	B-21 Bench Cupboard with top, bench technology 3 tap holes – SK41 sink (hot + cold water)
<b>Type</b>	Bench mounted forward bowl sink set Vandal resistant school pattern handles Vandal resistant aerated spout 120-degree restricted swivel
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Hot (or Warm) + Cold
<b>Colour Indicator on Handle</b>	Red (or Yellow) + Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 43: HS GLS with bench + sink**

Requirements	
<b>Location</b>	HS GLS with bench + sink
<b>Description</b>	B-21 Bench Cupboard with top, bench technology 2 tap holes – SK-41 sink (cold water)
<b>Type</b>	Bench mounted forward bowl sink set Vandal resistant school pattern handles Vandal resistant aerated Spout with 120-degree restricted swivel
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Hot (or Warm) + Cold
<b>Colour Indicator on Handle</b>	Red (or Yellow) + Blue
<b>Installation</b>	Outlet clearances above the rim of the sink must comply with statutory regulations. If required include an adaptor within the fittings to raise the outlets to the required height
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 44: HS Fitness laboratory**

Requirements	
<b>Location</b>	HS Fitness laboratory
<b>Description</b>	B-21 Bench Cupboard with top, bench technology 1 tap hole – SK-41 sink
<b>Type</b>	Pillar cock Vandal resistant aerator Vandal resistant school pattern handles
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Cold
<b>Colour Indicator on Handle</b>	Blue
<b>Installation</b>	Outlet clearances above the rim of the sink must comply with statutory regulations. If required include an adaptor within the fittings to raise the outlets to the required height
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 45: HS Clinic, PS Sick Bay, HS / PS Staff Room, HS / PS Tea Room**

Requirements	
<b>Location</b>	HS Clinic Boys + Girls PS Sick Bay HS / PS Staff Room HS / PS Tea Room
<b>Description</b>	B-21 Bench Cupboard with top, bench technology 3 tap holes – SK-42 sink (warm + cold water)
<b>Type</b>	Bench mounted forward bowl sink set 150mm ceramic disk operation ¼ turn lever handles Vandal resistant school pattern handles Vandal resistant aerator Spout with 120-degree restricted swivel
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Warm + Cold
<b>Colour Indicator on Handle</b>	Yellow + Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 46: HS Clinic, PS Sick Bay, HS / PS Staff Room, HS / PS Tea Room**

Requirements	
<b>Location</b>	HS Clinic Boys + Girls PS Sick Bay HS / PS Staff Room HS / PS Tea Room
<b>Description</b>	B-21 Bench Cupboard with top, bench technology 1 tap holes – SK-42 sink (warm + cold water)
<b>Type</b>	Bench mounted single lever sink mixer 213mm extended lever handle Spout with 120-degree restricted swivel
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Warm + Cold. Warm water supply, remote temperature control

Requirements	
<b>Colour Indicator on Handle</b>	Yellow + Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 47: HS / PS Special Programs Room**

Requirements	
<b>Location</b>	HS / PS Special Programs Room
<b>Description</b>	Bench Cupboard with top, bench technology 1 tap hole – SK-42 or SK-41 sink (cold water)
<b>Type</b>	Pillar cock Vandal resistant aerator Vandal resistant school pattern handles
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Cold
<b>Colour Indicator on Handle</b>	Blue
<b>Installation</b>	Outlet clearances above the rim of the sink must comply with statutory regulations. If required include an adaptor within the fittings to raise the outlets to the required height
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>WELS rating</b>	5 star

**Table 48: HS Science Laboratory**

Requirements	
<b>Location</b>	HS Science Laboratory
<b>Description</b>	B-48 Bench, 1 tap hole, sink (non-drinking cold water)
<b>Type</b>	Type 16 1-way school laboratory water tap with Fixed gooseneck jumper valve outlet 200mm reach spout Vandal resistant tube nozzle 6 l/min flow control 2 tapered anti-rotation lugs at base
<b>Finish</b>	Bright Chrome Plate

Requirements	
Isolation valve	Cold
Colour Indicator on Handle	Blue
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**Table 49: HS Visual Arts Learning Unit Dark Room**

Requirements	
Location	HS Visual Arts Learning Unit Dark Room
Description	B-70 Darkroom Trough with Bench Support, 3 tap holes
Type	Bench mounted forward bowl sink set 150mm ceramic disk operation ¼ turn lever handles Vandal resistant school pattern handles Vandal resistant aerator Spout with 120-degree restricted swivel
Finish	Bright Chrome Plate
Isolation valve	Hot + Cold
Colour Indicator on Handle	Red + Blue
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**Table 50: HS / PS PAA BD/CD/ED where Kitchen added**

Requirements	
Location	HS / PS PAA BD/CD/ED where Kitchen added
Description	B-0506 Bench Cupboard, 1200, 3 tap holes (hot + cold water)
Type	Bench mounted forward bowl sink set 150mm ceramic disk operation ¼ turn lever handles Vandal resistant school pattern handles Vandal resistant aerator Spout with 120-degree restricted swivel
Finish	Bright Chrome Plate



Requirements	
Isolation valve	Hot + Cold
Colour Indicator on Handle	Red + Blue
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**Table 51: HS Science Laboratory**

Requirements	
Location	HS Science Laboratory
Description	SP-48 Bench Height Adjustable front wind, 1 tap hole
Type	Type 16 1-way school laboratory water tap with Fixed gooseneck jumper valve outlet 200mm reach spout Vandal resistant tube nozzle 6 l/min flow control 2 tapered anti-rotation lugs at base
Finish	Bright Chrome Plate
Isolation valve	Cold – Isolating valve on master control
Colour Indicator on Handle	Blue
Vandal Resistant Construction	Yes. Robust. Tamper proof.
Connection	Flexible supply connection
WELS rating	5 star

**Table 52: HS Kitchen**

Requirements	
Location	HS Kitchen Domestic HS Kitchen Semi Commercial
Description	SP-49 Bench Height Adjustable front wind, 1 tap hole
Type	Bench mounted single lever sink mixer 230mm extended lever handle 120-degree restricted swivel spout
Finish	Bright Chrome Plate
Isolation valve	Cold – Isolating valve on master control

Requirements	
<b>Colour Indicator on Handle</b>	Blue
<b>Vandal Resistant Construction</b>	Yes. Robust. Tamper proof.
<b>Connection</b>	Flexible supply connection
<b>WELS rating</b>	5 star

**Table 53: Shared PAA**

Requirements	
<b>Location</b>	PAA BD/CD/ED Shared PAA IO/IS/P Shared PAA
<b>Description</b>	SK-40 Practical Activities Sink Trough
<b>Rim Height</b>	Rim height from floor as shown on drawing.  GUIDE NOTE: Refer to DRAWING in Figure 1. Insert appropriate project drawing reference number.
<b>Type</b>	2 off: Bench mounted low level laboratory bibcock Lever handles Vandal resistant aerator 6ltr/min flow control 2 tapered anti-rotation lugs  1 off: Fitted to central taphole Hob mounted sink tap School pattern jumper valve control fixed gooseneck outlet Spout projection 200mm x height 230mm Vandal resistant aerator 6l / min flow control 2 tapered anti-rotation lugs
<b>Finish</b>	Bright Chrome Plate
<b>Isolation valve</b>	Cold – Isolating valve on master control

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Requirements	
Colour Indicator on Handle	Blue
Vandal Resistant Construction	Yes. Robust. Tamper proof.
WELS rating	5 star

**SUPPORT FRAME - PLAN**

BENCHTOP AND SINK UNIT REFER TO SPECIFICATION GUIDE

**SUPPORT FRAME - FRONT ELEVATION**

SUPPORT RAIL UNDER TROUGH  
NO BOTTOM RAIL TO FRONT OF BENCH  
FIXING LUG

**SUPPORT FRAME - END ELEVATION**

BENCHTOP AND SINK UNIT REFER TO SPECIFICATION GUIDE - SHOWN DOTTED  
SUPPORT RAIL UNDER SINK UNIT BEYOND  
FIXING LUG

**SUPPORT FRAME - SECTION THROUGH TROUGH**

NO BOTTOM RAIL TO FRONT OF BENCH

1:20 @ A4

0 0.2 0.4 0.6 0.8m