



# A Guide to WELS and the Relationship with the WaterMark Certification Scheme

## WELS(Water Efficiency Labeling Scheme 水效率标签计划)指南, 以及WELS和Watermark (水标志) 认证计划关系的指南

### BACKGROUND TO WELS

#### WELS的背景简介

The Water Efficiency Labelling and Standards (WELS) Scheme applies national mandatory water efficiency labelling and minimum performance standards to household water-using products. AS/NZS 6400 is the Standard that outlines the WELS requirements. 水效率标签计划 (WELS) 将国家强制水效率标签和最低性能标准应用于家用用水产品, 而AS/NZS 6400 标准则概述了WELS的要求。

The WELS Scheme addresses high domestic water consumption by providing nationally-consistent water efficiency information to consumers at retail level and by encouraging manufacturers to design more water-efficient products. WELS通过在零售的层面上, 向消费者提供全国一致的水效率信息, 并鼓励生产商设计更加节水的产品, 来解决家用用水产品高耗水的问题。

The water-using products covered by the WELS Scheme currently include:  
当前WELS包含的用水产品包括:

- Showers 淋浴设备
- Toilet (WC) equipment 马桶设备
- Faucets 水龙头
- Urinals 尿盆
- Flow controllers 水流控制器
- Clothes washing machines and dishwashers 洗衣机和洗碗机

From 1 July 2006, mandatory registration and labelling will apply to all of these products apart from flow controllers, for which registration and labelling will be optional.

从2006年7月1日开始, 除了水流控制器的节水标签为自愿的以外, 其它所列出的产品都是需要强制加贴节水标签的。

### GUIDANCE ON SPECIFIC PRODUCT TYPES

#### 特定产品指南

The WELS requirements are applied to products that are required to be certified under the WaterMark Certification Scheme. In most cases testing to the relevant WaterMark standard will satisfy WELS requirements. However, after WaterMark certification it is necessary to lodge a separate registration at the Australian Government website [www.waterrating.gov.au](http://www.waterrating.gov.au).

WELS的要求适用于需要通过Watermark (水标志) 认证的产品。在绝大多数情况下, 通过水标志标准试验的产品是满足WELS的要求的。然而, 当产品在完成水标志认证以后, 需要另外在 [www.waterrating.gov.au](http://www.waterrating.gov.au) 的政府网站上注册WELS。

Following is an explanation of the product groups and how WaterMark and WELS apply and interact.  
下面是关于不同产品如何应用Watermark和WELS, 以及两者关系的解释

## Showers 淋浴产品



The WELS Scheme applies to showers utilised for personal bathing, specifically the shower head and other components, if supplied with the head. It does not apply to emergency deluge or safety showers. These requirements are identified in AS 3662 (Performance requirements for showers for bathing) and the Standard that outlines the WELS requirements in terms of the star ratings, AS/NZS 6400.

WELS适用于个人洗澡的淋浴产品，如果提供喷淋头装置，则尤指喷淋头及其组件。这不适用于紧急冲洗和安全淋浴。这些要求在澳标AS 3662中定义（淋浴和洗澡设备的性能要求），同时，AS/NZS 6400规定了WELS的星级评定。

Differentiation between products is based on the nominal flow rate @ 250kPa. However, flow rate measurements are made at 150kPa and 350kPa to determine the flow rate regulation across this pressure range. The shower heads also have to satisfy performance criteria, such as mean spray spread angle and temperature drop, while operating at lower flow rates.

不同产品的区别是基于在250kPa压力下的流量，但是，流量的测量是在150kPa和350kPa的压力下进行，进而确定在这个压力范围内的流量。喷淋头也需要符合性能要求，比如在低流量状态下的喷洒角度和温度下降。

Satisfying the technical requirements of AS 3662 enables a rating based on the average flow rate' as follows:

在满足AS 3662所规定的性能要求后，就可以在下列出的平均流量上评定WELS星级了：

- more than 16L/min. or failing the performance requirement are nominated 0 Star  
0 星级：每分钟高于16升和没有符合性能要求
- more than 12L/min. but not more than 16L/min. are nominated 1 Star  
1 星级：每分钟超过12升，但小于16升
- more than 9L/min. but not more than 12L/min. are nominated 2 Star  
2 星级：每分钟超过9升，但小于12升
- more than 7.5L/min. but not more than 9L/min. are nominated 3 Star  
3 星级：每分钟超过7.5升，但小于9升
- the highest star rating for Showers is 3 Star  
淋浴设备的最高评级是3级

### WaterMark Relationship with WELS Ratings

Watermark和WELS星级评定的关系

Showers covered by WELS are to be certified under the WaterMark Level 2.

WELS涵盖的淋浴设备需要在Watermark第二级的规范下认证

## Toilets (WC)



The WELS Scheme applies to the following WC product types:

WELS计划适用于一下厕所产品:

- Water Closet close coupled suites  
紧密结合式厕所产品
- Water Closet pans with matching sets (water closet cistern or flush valve)  
厕所产品桶体与组合套件 (水箱或冲水阀)
- Water Closet flushing device (water closet cistern or flush valve)  
厕所产品冲水设备

The scheme differentiates products based on the discharge flush volume. For dual flush the star rating is calculated from the average of 4 half flushes and one full flush. The greater number of stars the more water efficient the product is without compromising performance.

该计划根据产品不同的冲水量来区分。对于双流量冲水的星级评定，流量是根据4次半流量和1次全流量冲水的平均流量来计算。在不影响性能的前提下，星级越高，则节水性能越好。

The technical requirements are identified in AS 1172 and ATS5200.020/021 and the Standard that outlines the WELS requirements in terms of the star ratings, AS/NZS 6400. AS 1172.1:2005 and AS 1172.2:1999 Amendment 2 were issued in August 2005 to include the reference to AS/NZS 6400:2005. The future revision of AS 1172.2 will fully align the Standards.

产品的技术要求是在AS 1172和ATS 5200.020/021中规定，WELS星级评定是在AS/NZS 6400中规定。AS 1172.1:2005和AS 1172.2:1999第二次修正是在2005年8月发行的，其中引用了AS/NZS 6400:2005。将来的AS 1172.2修订版将与所有标准保持一致。

The star ratings are allocated as follows:

WELS评定则参阅一下条目:

- 9/4.5 Water Closet Cisterns are nominated 1 star and align to more than 4.5L but not more than 5.5L average flush volume

9/4.5升的水箱为1星级，冲水量高于4.5升但小于5.5升。

- 6L Water Closet Pans with matching 6/3L cisterns or flush valves are nominated 3 star and align to **more than 4.5L but not more than 4.0L average flush volume**

6升的桶体和与之配合的6/3升的水箱或冲水阀为3星级，平均冲水量高于4.0升但低于4.5升

- 4.5L Water Closet Pans with matching 4.5/3L cisterns or flush valves are nominated 4 star and align to **more than 4.0L but not more than 3.5L average flush volume**

4.5升的桶体和与之配合的4.5/3升水箱或冲水阀为4星级，平均冲水量高于3.5升但低于4升。

2 star, 5 star and 6 star ratings do not generally align with water closet types but are available:

2、5和6星级的评定虽然存在，但一般不适合厕所产品。

- 2 star relates to more than 4.0L but not more than 4.5L average flush volume

2星级为平均冲水量高于4.0升但低于4.5升

- 5 star relates to more than 2.5L but not more than 3.0L average flush volume

5星级为平均冲水量高于2.5升但低于3.05升

- 6 star relates to not more than 2.5L average flush volume.

6星级为平均冲水量低于2.5升

### WaterMark Relationship with WELS Ratings

Watermark和WELS星级评定的关系

Showers covered by WELS are to be certified under the WaterMark Level 1

## Faucets 龙头水嘴



The WELS Scheme applies to faucets for use over a basin, ablution trough, kitchen sink or laundry trough regardless of the operating mechanism. It does not apply to a faucet that is used solely over a bath.

不论水龙头的操作机制如何，WELS计划都适用于脸盆用的、冲洗用的、厨房水槽用的或洗衣系统用的龙头水嘴。该计划不适用于仅用作浴池的龙头。

Faucets are differentiated based on the nominal flow rate @ 250kPa. However, flow rate measurements are made at 150kPa and 350kPa to determine flow rate regulation across this pressure range. Faucets are also required to satisfy basic material, design and performance requirements.

水龙头是按照在250kPa压力下的名义流速来区分的。但是，流量的测量是在150kPa和350kPa的压力下进行，进而确定在这个压力范围内的流量。龙头还需要满足基本材料、设计和性能方面的要求。

The above requirements and others are defined in AS/NZS 3718 (Water Supply – Tap ware) and AS/NZS 6400 (the Standard that outlines the WELS requirements in terms of the star ratings). The technical requirements of AS/NZS 3718 enable the establishment of a rating based on the 'the average flow rate' as follows:

以上要求，和其它的要求是在标准AS/NZS 3718（供水—龙头）和AS/NZS 6400（WELS的标准）中定义。根据AS/NZS 3718的技术要求，下面列出了基于流量的WELS星级评定：

- more than 16L/min. or failing the performance requirement are nominated 0 star  
0 星级：每分钟高于16升，或没有通过性能要求测试
- more than 12L/min. but not more than 16L/min. are nominated 1 star  
1 星级：每分钟高于12升但低于16升
- more than 9L/min. but not more than 12L/min. are nominated 2 star  
2 星级：每分钟高于9升但低于12升
- more than 7.5L/min. but not more than 9L/min. are nominated 3 star  
3 星级：每分钟高于7.5升但低于9升
- more than 6L/min. but not more than 7.5L/min. are nominated 4 star  
4 星级：每分钟高于6升但低于7.5升
- more than 4.5L/min. but not more than 6L/min. are nominated 5 star  
5 星级：每分钟高于4.5升但低于6升
- less than 4L/min. are nominated 6 star  
6 星级：每分钟低于4升

### WaterMark Relationship with WELS Ratings

Watermark和WELS星级评定的关系

Faucets covered by WELS are to be certified under the WaterMark Level 1.

WELS涵盖的龙头水嘴需要在Watermark第一级的规范下认证

## Urinals 尿盆



The WELS Scheme applies to the following urinal types:

WELS计划适用于一下类型的尿盆:

- A combination of urinal and flushing control mechanism.

尿盆和冲水控制设施的组合

- A urinal fixture

尿盆

- A urinal flushing mechanism

尿盆冲水设施

The WELS Scheme does not apply to waterless urinals or to those products utilised and promoted as enabling waterless urinals.

WELS计划不适用于无水尿盆，以及使尿盆产品成为无水尿盆的组件和产品。

Urinals are differentiated based on the flush volume, type and sophistication of the operating mechanism. These requirements and others are defined in AS/NZS 3892 (Urinals) and AS/NZS 6400 (the Standard that outlines the WELS requirements in terms of the star ratings).

尿盆是根据不同的冲水流量，不同的操作类型和精密复杂程度来区分的。这些要求是在AS/NZS 3892(尿盆)和AS/NZS 6400 (WELS) 的标准中定义的。

AS/NZS 3892 establishes a rating based on the flushing performance. Coupled with the type of operation the products can be rated as follows:

根据AS/NZS 3892标准的技术要求以及产品的操作类型，下面列出了基于流量的WELS星级评定:

- more than 2.5L/single stall or 4L two stalls or equivalent width of continuous wall are nominated 0 star

0 星级: 单人位的超过2.5升, 双人位的或相当于双人位盆壁宽度的超过4升

- not more than 4L two stalls or equivalent width of continuous wall and conscious demand driven or smart demand operation are nominated 1 star

1 星级: 具有感应驱动或智能操作的双人位或相当于双人位盆壁宽度且冲水量低于4升的

- not more than 2.5L single stall or equivalent width of continuous wall and conscious demand driven or smart demand operation are nominated 2 star

2 星级: 具有感应驱动或智能操作的单人位或相当于单人位盆壁宽度且冲水量低于2.5升的

- not more than 2L single stall or equivalent width of continuous wall and conscious demand driven or smart driven operation are nominated 3 star

3 星级: 具有感应驱动或智能操作的单人位或相当于单人位盆壁宽度且冲水量低于2升的

- not more than 1.5L single stall or equivalent width of continuous wall and smart demand operation are nominated 4 star

4 星级: 具有智能操作的单人位或相当于单人位盆壁宽度且冲水量低于1.5升的

- not more than 1L single stall or equivalent width of continuous wall and smart demand operation are nominated 5 star

5 星级: 具有智能操作的单人位或相当于单人位盆壁宽度且冲水量低于1升的

- not more than 1L single stall or equivalent width of continuous wall and smart demand operation with urine sensing device are nominated 6 star.

6 星级: 具有尿盆传感器的智能操作装置的单人位或相当于单人位盆壁宽度且冲水量低于1升的

### WaterMark Relationship with WELS Ratings

Watermark和WELS星级评定的关系

Urinals covered by WELS are to be certified under the WaterMark Level 2

WELS涵盖的尿盆产品需要在Watermark第二级规范下认证。

## Flow Controllers 水流控制器



The WELS Scheme applies to flow controllers that are installed either end of line or in-line, generally in terms of supporting single fixtures or appliances. However, flow controllers cannot be rated in terms of direct use with a shower.

WELS计划适用于管线末端和管线中的水流控制器。通常来说，这些控制器是控制单个用水设备的。但是，如果是直接用于淋浴设备的，则不能做WELS星级评定。

Flow controllers are differentiated based on the nominal flow rate @ 250kPa. However, flow rate measurements are made at 150kPa and 350kPa to determine flow rate regulation across this pressure range. Flow controllers are required to satisfy basic material and design requirements. 水流控制器是按照在250kPa压力下的名义流速来区分的。但是，流量的测量是在150kPa和350kPa的压力下进行，进而确定在这个压力范围内的流量。水流控制器还需要满足基本材料、设计和性能方面的要求。

The above requirements and others are defined in ATS 5200.037.2 (Flow Controllers) and AS/NZS 6400 (the Standard that outlines the WELS requirements in terms of the star ratings).

以上要求，和其它的要求是在标准ATS 5200.037.2（水流控制器）和AS/NZS 6400（WELS的标准）中定义。

The technical requirements of ATS5200.037.2 enable the establishment of a rating based on the 'the average flow rate' as follows:

根据ATS 5200.037.2的技术要求，下面列出了基于平均流量的WELS星级评定：

- more than 16L/min. or failing the performance requirement are nominated 0 star  
0 星级：超过每分钟16升的，或没有通过性能测试的
- more than 12L/min. but not more than 16L/min. are nominated 1 star  
1 星级：超过每分钟12升，单低于每分钟16升的
- more than 9L/min. but not more than 12L/min. are nominated 2 star  
2 星级：超过每分钟9升，单低于每分钟12升的
- more than 7.5L/min. but not more than 9L/min. are nominated 3 star  
3 星级：超过每分钟7.5升，单低于每分钟9升的
- more than 6L/min. but not more than 7.5L/min. are nominated 4 star  
4 星级：超过每分钟6升，单低于每分钟7.5升的
- more than 4.5L/min. but not more than 6L/min. are nominated 5 star  
5 星级：超过每分钟4.5升，单低于每分钟6升的
- less than 4L/min. are nominated 6 star  
6 星级：低于每分钟4升的

### WaterMark Relationship with WELS Ratings

Watermark和WELS星级评定的关系

Flow controllers covered by WELS are to be certified under the WaterMark Level 1.

WELS涵盖的水流控制器需要在Watermark第一级规范下认证。



## Clothes Washing Machines 洗衣机



The WELS Scheme applies to washing machines for household or similar use as identified in AS 2040.2.

WELS计划适用于在标准AS 2040.2中定义的家用洗衣机或类似用途的产品。

Some examples of washing machine types are:

几个洗衣机的例子:

- Top loading non-drum (impeller or agitator)  
立式无滚筒（波轮或搅动器）
- Front and top loading drum type  
卧式和立式的滚筒洗衣机
- Front-loading drum type  
卧式滚筒洗衣机
- Washer function of combination washer/dryer  
洗衣干衣机的洗衣功能部分

The Star rating index is determined and marked to the nearest ½ star. A star rating index of less than 1 receives a 0 star.

星级评定将被标定在最接近的½星级处。当评级小于1时，则将被定位0星级。

Clothes washing machines are differentiated by their water consumption. This is calculated based on testing to AS 2040.2 on the higher claimed total water consumption for warm or cold wash. 洗衣机是根据它们用水量的不同来区分的，而用水量是根据标准AS 2040.2在冷水或热水测试时声明的用水量中的较高者来计算的。

### WaterMark Relationship with WELS Ratings

Watermark和WELS星级评定的关系

Clothes washing machines covered by WELS are to be certified under the WaterMark Level 2

WELS涵盖的洗衣机需要在Watermark第二级规范下认证。

## Dishwashers 洗碗机



The WELS Scheme applies to dishwashers utilised for household use as specified in AS 2007.2.

WELS计划适用于标准AS 2007.2中定义的家用洗碗机。

The Star rating index is determined and marked to the nearest ½ star. A star rating index of less than 1 receives a 0 star.

星级评定将被标定在最接近的½星级处。当评级小于1时，则将被定位0星级。

Dishwashers are differentiated based on water consumption per equivalent types (utilising place settings).

洗碗机是根据相应类型产品（使用环境）的用水量来区分的。

### WaterMark Relationship with WELS Ratings

Watermark和WELS星级评定的关系

Dishwashers covered by WELS are to be certified under the WaterMark Level 2

WELS涵盖的洗衣机需要在Watermark第二级规范下认证。

**Further Information**  
更多信息

**Further Information**  
更多信息

If you would like further information on the WaterMark Certification Scheme You are invited to contact us via email on [enquiries@cqc-sai.com](mailto:enquiries@cqc-sai.com) or via phone/fax  
如果您需要更多的关于水标志（Watermark）认证的信息，请发邮件到[enquiries@cqc-sai.com](mailto:enquiries@cqc-sai.com)，或致电：

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