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### Chlorination Facility Operations Equipment Specification

| ABN 28 00                   | 13 434 917 <b>MU</b>                       | TI CHLORINE SPANNER |
|-----------------------------|--|---------------------|
| Doc ID                      | Custodian                                  | Approved            |
| 50873127                    | Senior Principal Engineer, WT, Engineering | Head of Engineering |
| Version Date                | Accountabilities Framework                 | Stakeholders        |
| 4/12/2023                   | Level 1 – Acquire Infrastructure Assets    | Operations          |
| Next Review Date 30/11/2026 | Level 2 – Design Assets                    |                     |



### 1 Purpose

The purpose of this specification is to describe the requirements for multi chlorine spanners used at Water Corporation sites where chlorine drums or cylinders are connected for use.

# 2 Scope

This specification applies to spanners used at Water Corporation chlorine facilities for drum or cylinder connection/disconnection and is mandatory. Spanners other than the multi chlorine spanner shall not be employed.

## 3 Definitions

ESD Emergency Shut-off Device

#### 4 References

AS/NZS 2927:2019 - The Storage and Handling of Liquefied Chlorine Gas Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 WA Chlorine Mallet: https://nexus.watercorporation.com.au/otcs/cs.exe/app/nodes/58573731 Chlorine Valve Key: https://nexus.watercorporation.com.au/otcs/cs.exe/app/nodes/58573742 Multi Chlorine Spanner Drawing: EO28-091-012



# 5 Specification

The **Multi Chlorine Spanner** is a standard designed tool, for use by authorised/trained personnel, for connecting and disconnecting chlorine drums and cylinders. The **Multi Chlorine Spanner** has a unique twisted feature and is angled to allow the operator to apply reasonable force to open spindle valves. A Chlorine Mallet can be employed where the use of a hand is insufficient.

*Note:* The new Aluminium/Bronze/Silicon spindle valves on chlorine drums and cylinders are not as tight as the previous mild steel spindle valves.

• The large open end of the **Multi Chlorine Spanner** is used to remove or replace the valve outlet cap nut.

NOTE: Never attempt to open or close the valve gland nut by any means.

- The small open end of the **Multi Chlorine Spanner** can be used for loosening the bolts that secure the spindle valve protective cover on a chlorine drum.
- **NOTE:** In some cases, instead of bolts, the valve protection cover has also been reported to be secured by small chocks of wood.
- The square cut out on the **Multi Chlorine Spanner** is used for opening and closing the gas or liquid spindle valve on a chlorine drum or gas spindle valve on a chlorine cylinder.
- **NOTE:** After the initial opening of a chlorine drum or cylinder with the standard **Multi Chlorine Spanner** it should be replaced with the standard **Chlorine Valve Key** on each of the spindle valves of a chlorine (drum GAS) withdrawal system OR on each auxiliary valve (pigtail isolation valve) of a chlorine (drum LIQUID) withdrawal system OR on the spindle valve of a cylinder that is connected to allow for quick and easy closure in the event of a chlorine leak. The only exception to this is where an ESD is in use as they obstruct the use of a key.

A dimensioned drawing of the multi chlorine spanner has been developed: EO28-091-012-01B

The following companies are aware of the Water Corporation's standard design of this spanner:

- Nix Sheetmetal Engineering

| Document Revision History |   |
|---------------------------|---|
| 26 Feb 2002               | Document developed by RB & reviewed by NH                 |
| 7 May 2007                | Document reviewed by RB & NH                              |
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| 25 Aug 2010               | Document reviewed by RB & NH                              |
| 9 Oct 2013                | Document reviewed by SZ & NH                              |
| 17 Oct 2017               | Document reviewed by SZ & NH Sec4 and Sec5: minor updates |
| 19 Oct 2020               | Document reviewed by SZ & NH Minor changes                |
| 4 Dec 2023                | Document reviewed by SZ & NH                              |