



Application description

When ships with chemicals dock for unloading at a port, the chemicals must be discharged in a quick and safe manner. For this the ship needs to be connected with hoses to the discharge terminal. These hoses are connected with bolted flanges which must be tightened on a specific torque.

Bolting process for this application:

In general, 4", 6", 8" and 10" flanges are used:

For Ethane(C_2H_6)

8": M24 bolts (nuts 36MM) – final torque 430Nm

10": M27 bolts (nuts 41MM) – final torque 430Nm

For Methyl Etylene(C_3H_6)

4": M24 bolts (nuts 36MM) – final torque 270Nm

6": M27 bolts (nuts 41MM) – final torque 270Nm

Depending on the chemical being discharged
ATEX tools can be specified.

RAD solution and USP's:

- B-RAD or pneumatic torque wrench
- Much faster and accurate
- Effortless and comfortable
- No noise and vibrations
- Very easy to use

Examples of manufacturers:

Trelleborg, MEIJIFLEX, JGB.

The conventional methods and drawbacks:

- Hydraulic torque wrenches:
extremely slow and cumbersome
- Manual torque wrenches:
slow, hard physical work

Specification of RAD tools and accessoires:

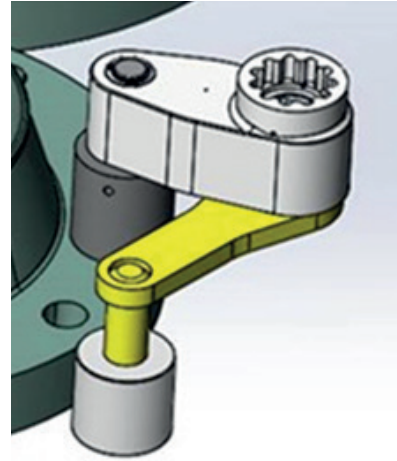
- B-RAD SELECT 1400 (PN: 28266) or RAD 10 GX-M (PN: 13539) (also available in ATEX version)
- Offset gearbox (PN: 14920)
- Custom reaction arm with non-sparking sleeve (PN: Q15442)
- Square drive $\frac{3}{4}$ " (PN: 14927)
(for offset gearbox PN: 14920)
- SOCKET SK-12P .938-12P.75M-3.250 (PN: 14896)
- SOCKET SK-12P 1.063-12P.75M-3.250 (PN: 14926)
- SOCKET SK-12P 1.125-12P.75M-3.250 (PN: 27136)

Target customers:

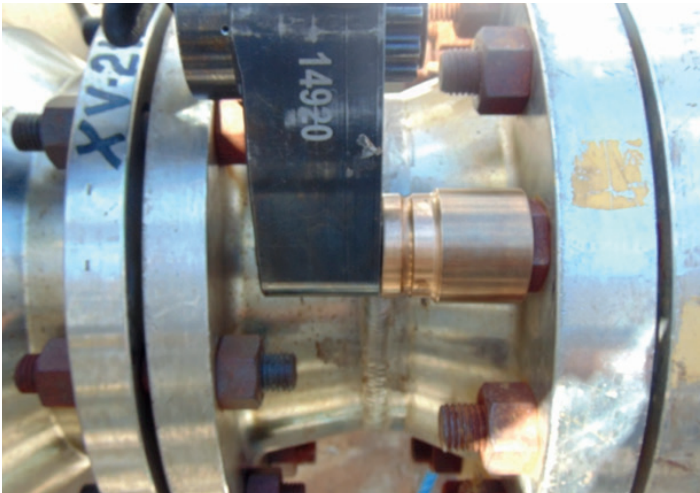
Independent tank terminals, mining, transfer of chemicals.



Ships with chemicals on board.



Reaction arm PN: Q15442 in yellow (must be ordered with offset gearbox PN: 14920).



The 14920 offset gearbox between two flanges. A standard RAD tool would not fit.



The flanged hoses are visible on the photo above.

