AGAINST LEAKAGE IN THE SYSTEM

CASE STUDY: PROCOM AMATURENTECHNIK GMBH, KAMEN, GERMANY

Whether in food industry, shipbuilding, the chemical sector or paper industry: plate heat exchangers are used in a variety of fields. Proper functioning is of great importance for undisturbed operation. In order to ensure this co. ProCom Armaturentechnik GmbH offers full service for plate heat exchangers and has been working with the alkitronic R/SG for over fifteen years.

COMPANY PROFILE

Since 1999 the ProCom Armaturentechnik GmbH offers quick, comprehensive and flexible service for plate heat exchangers of all brands. The company works brand-independent and carries out all necessary jobs from supply and assembly to extension, fitting and cleaning. ProCom Armaturentechnik GmbH is situated in the North Rhine Westphalian city Kamen.

Plate heat exchangers are used in a wide range of industries – with this their perfect function is essential.

INITIAL SITUATION

Plate heat exchangers are used in a variety of industries: ProCom Armaturentechnik GmbH offers their service for plate heat exchanger companies in the food industry, for instance in the ice or beverage production. The customers of ProCom Armaturentechnik GmbH can also be found in the energy sector as well as shipping, paper industry or chemical industry.

In these fields the plate heat exchangers bear central functions and their proper operation and absolute leakage-freeness is of great importance.

SOLUTION

To ensure perfect operation of the tools and thus a trouble-free flow of the production process the mechanics of the ProCom Armaturentechnik GmbH require reliable tools. During the re-tensioning process the spindles of the plate heat exchangers are opened with these and then re-tightened to the correct degree. "During this work step not the specific torque is important, but the continuous rotating force of the torque multiplier in order to properly tighten the plates," explains Hans-Joachim von Albedyhll, employee of alki TECHNIK GmbH.

Figure 1: The alkitronic EFCip-R on a plate heat exchanger. Photo: alki TECHNIK

The radial torque multipliers EF-SG / EFC-R with electric drive and CLS-SG 80 / RCL 80 with pneumatic drive of the alkitronic R/SG series fulfil this requirement and are being used at ProCom Armaturentechnik GmbH for more than 10 years - with very satisfying results: "Compared to working with so called impact wrenches there is much less wear and tear and also the time saved during the opening and closing of the plate heat exchangers is immense", Andreas Hustädte, managing director at ProCom GmbH, states the advantages of the alkitronic torque multipliers for his company.

“We are completely satisfied with our alkitronic products“,
A. Hustädte, Managing Director
ProCom GmbH

This is confirmed by alki TECHNIK employee von Albedyhll: "With a large torque range from 560 up to 3.780 Nm and having radial resp. tangential gearing, which was especially constructed for use on plate heat exchangers, our radial torque multipliers are the ideal tool." Furthermore, the one-finger operation enables quick and safe tightening and the breakage safety ensures low maintenance costs. This assessment is consistent with the experiences of Andreas Hustädte. "We are fully satisfied with the products.: The tools are lasting and realiable and also service and customer care by alki TECHNIK GmbH leave no wishes unfulfilled," says Hustädte.

Figure 2: The alkitronic radial torque multiplier in use. Photo: alki TECHNIK

Figure 3: Bolting connection at the plate heat exchanger

TECHNICAL DATA OF THE R/SG

- ✓ Constant higher tightening quality compared to ratcheting tools due to continuous rotating

Types with electric drive

- ✓ Repeat shut-off accuracy ± 3% for the same bolting application
- ✓ Electrical data: Mains voltage 100 V - 253 V, frequency 45 Hz - 66 Hz, performance max. 2000 W
- ✓ Protection class I, types EFCip with protection class IP 54 (Standard), EF optionally available

Types with pneumatic drive

- ✓ Best work and indicated torques at operating pressure of 2-7 bar at a volume flow of approx. 10-15 l/s
- ✓ Torque accuracy depends on the stability of the supply system
- ✓ Torque regulation is made via air intake resp. pressure regulator of the maintenance unit