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PNEUTORQUE USED AS DRIVE UNIT FOR OPENING AND CLOSING INDUSTRIAL VALVES

Chemical and petrochemical plants and refineries have many valves in their piping systems. When the valves must be opened OR closed it is normally done manually by the operator. When the valves are large or when there are many valves to open or close it will take the operator a lot of time and effort to do this. The advantage of the Pneutorque is that the rotation is slow but constant, with no impacting. The valves that are mostly used are rising and non-rising plate valves up to a maximum diameter of 36".

The non-rising type of valves are the best ones for us, because we can simply use the standard Pneutorque with a suitable adapter (mostly a standard power socket but keyed adapters are also possible). We only need to know what the maximum closing force is and what the best point is for taking the reaction force.

For the rising type of valves we must use a geared offset with a suitable built in adapter for connection to the valve driver. The valve driver normally is hexagonal or splined. Here we also need to know the maximum closing force and the best point to take the reaction force.

The advantages for the customer are:

Time saving when used for large or multiple valves.

Small valves can be closed or opened quicker by the operator, but for the large or multiple valves the Pneutorque has a lot more stamina!

Improved Safety.

The people know that the Pneutorque will open or close the valve with the same force every time. The operator can be small, large, powerful OR not, it doesn't matter, the force will always be the same.

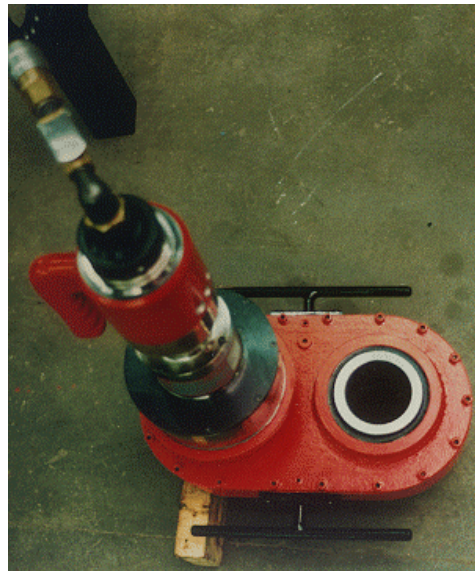
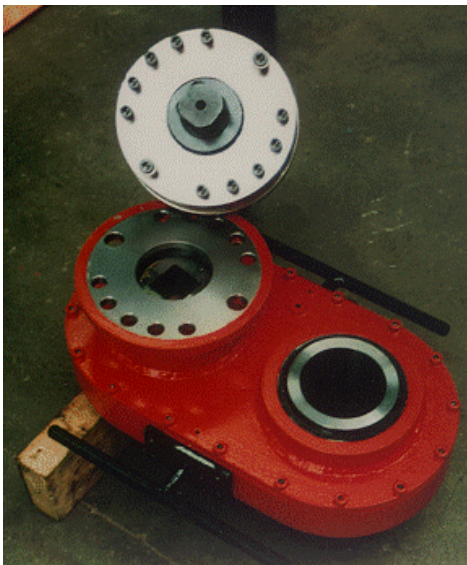
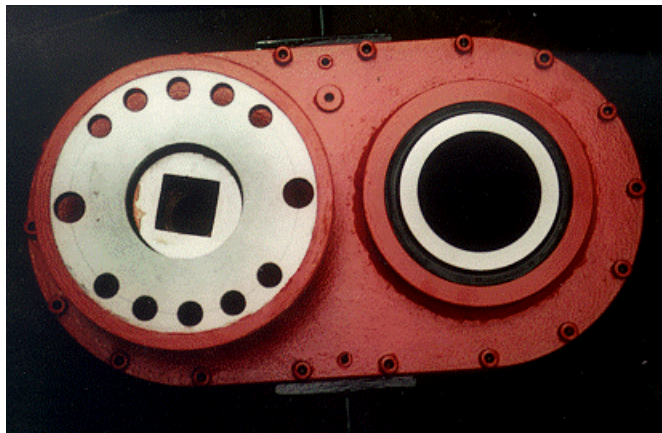
Ergonomic

The operator only needs to fix the Pneutorque on the valve and push a simple button. For closing or opening valves manually, he must turn the wheel for a certain period of time with sometimes a lot of force and often in an uncomfortable position.

PT9 Manual Two Speed with custom made Geared Offset.

This geared offset was designed to fit 36" valves fitted in steam supply pipes. These pipes were laid in the ground years ago and had given the operators all these years of problems and sore backs. The maximum closing force is up to 6000 N.m. The valve is fitted with an adapter plate with four posts that align on both sides, front and back, with the geared offset.

This solution was so successful that it has now been applied to newer, smaller valves. On these, a PT2000 drives an aluminium geared offset.



PT1500 with custom made Geared Offset

The request from the customer was to make the geared offset as light as possible. The solution was to make the geared offset from aluminium. The big problem however was to get the reaction force back to the valve. This was achieved by making a frame that can quickly be mounted on the valve using a clamping system.

