

iChangeOver



What is unique about the iChangeOver?

The iChangeOver ensures all its gas is being supplied at sufficiently high pressure and the flow (kg/h) - even at the low gas levels and when the cylinder has its limited ability to evaporate and the remaining liquid gas will fast enough to service all the other appliances as well.



- A traditional change-over regulator may also stop serving cylinder A when cylinder pressure reaches 0.7 bar, leaving around 5-10% of its remaining gas unusable -there is a significant loss faced by the consumer, and a significant win for the gas company. Accessing the gas, which is trapped inside and it totally depends on the surrounding air temperature and the gas type.
- By using the iChangeOver valve, where both Cylinder A and B can be emptied to complete 100% and no excess gas will be needed to be sent back to its gas company . Around 10% of its gas was left inside the cylinder, and around 10 % reduction was faced in logistic costs by the gas company.
- This also ensures a strong return on investment by using the I Changeover vs a traditional change-over regulator and there was a win -win for its end user and the gas company, which may save approx. 10% of its logistics cost.

How does the iChangeOver works?



When the gas pressure in cylinder A falls to under 1.0 bar - or approximately 1 kg of gas is left -the gas regulator starts to lose performance in flow and outlet pressure.



This is also caused by the continued drop in inlet pressure to the regulator - and this pressure drop is caused by the gas wetted surface of the cylinder which is being reduced, restricting itself with enough new energy to transfer from the surrounding air to the liquid gas inside the cylinder.



In a traditional gas installation, the falling gas pressure which will cause a gradual drop in the gas regulator's outlet pressure and a drop in the gas flow (kg/h).



As the inlet pressure eventually drops to 0.3 bar - which is equivalent to an empty cylinder - the regulator's outlet pressure drops 2-10 mbar and is depending on the regulator setting design, gas type and the surrounding of the air temperature.



Consequently, the gas flow eventually drops to around 0.3-0.5 kg/h from the maximum flow of typically 1.5 kg/h.

This causes a significantly reduced performance of the gas appliance which is serviced, and it may also start to have an incomplete combustion of the gas supplied - the flame temperature drops and energy efficiency drops sharply.

To ensure continued high pressure and high flow from the gas which is also remaining in cylinder A servicing the gas regulator and appliance, the I Changeover temporarily also switches the gas consumption to cylinder B standing by with a full load.

Gas consumption from Cylinder A is now paused 20 minutes, which is allowing it to regain and it is built up by the gas pressure and gas phase volume, or high flow ability.

By giving cylinder A time to recreate and it is built up enough gas phase and is carried through the slow vaporization and the remaining liquid, improved performance of the gas regulator and the gas appliance can also be assured.

The iGasView app is also programmed to calculate when the equilibrium is reached by knowing

1. Remaining gas weight
2. Wetted surface of the gas cylinder
3. Surrounding air temperature

Gas consumption is now termed as the services from cylinder A which is now standing by to supply the gas at its high flow and is sufficient inlet pressure to serve the gas appliance efficiently.

This switching back and the forth is between cylinders A and B is also done multiple times until all gas in Cylinder A can also been consumed 100%.



The iGasView app connects to the iGasView devices to control and monitor gas consumption. The app can also be used with iChangeOver and other applications related to the use of gas.

Advantages of iChangeOver

Can empty gas cylinder 100% | Strong ROI for consumer

**Saved logistic cost of gas company | Better performance and combustion of the gas appliance =>
Less Co2 emission less NoX- less Carbon mono oxide risk from the combustion**



**40+ Million
Safe Families**



**120+
Countries**



**400+
Products**



**25+
Certificates**



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