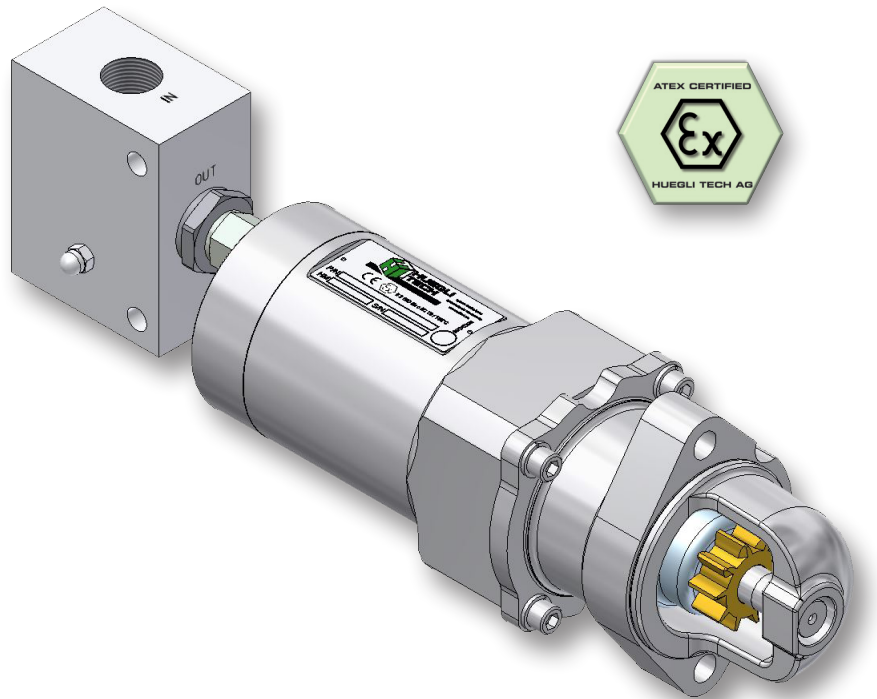


# Hydraulic Starter - ATEX

## A/B/C/D/E Series

### Features and Benefits

- Ideal for ex-proof areas
- Spark-free BE-Pinion
- Smooth Soft Engagement Valve
- Eliminates shockwaves and reduces mechanical wear
- With over 90% efficiency
- Provides the same high torque at lower temperature
- Black start capability
- Starting is always possible, anywhere, anytime



## Safe and reliable HYDROTOR<sup>®</sup> for use in Potentially Explosive Atmospheres

Certified to ATEX Directives - for a high degree of safety.

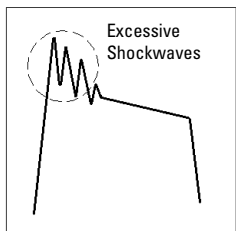
Motor Housing	Aluminum
Pinion Housing	Aluminum / Ductile iron
Port Plate	Aluminum
BE-Pinion	Copper-Beryllium
Number of Pistons*	7 or 9
Displacement*	From 0.50 to 5.88 in <sup>3</sup> /rev
Speed Range	0-7000 RPM
Drive Type	Inertia
Maximum Working Pressure	3000 PSI
Rotation (Viewing Drive End)	CW standard (CCW optional)
Maximum Torque*	From 15 to 210 ft-lbs
Operating Temperature	From -40 °C to +120 °C
Overall Volumetric Efficiency	92 %
Recommended Fluid	Hydraulic oil according MIL-H-5606
Soft Engagement Valve	Aluminium
ATEX designation	II 2 G/D Ex c IIC T6 / T85 °C

\* According to HYDROTOR model

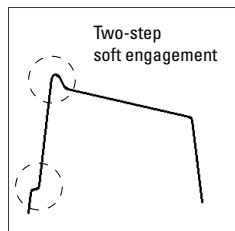
# Hydraulic Starter - ATEX

## Genuine functional principle

When the Start Valve opens, oil flows from the accumulator to the Soft Engagement Valve under high pressure. Its internal valve remains closed, but a small amount of pilot oil flows in the Hydrotor® Hydraulic Starter - ATEX, which begins to rotate, causing the BE-Pinion to smoothly engage into the ring gear. As the increasing oil pressure begins to crank the engine, it will open the valve completely to allow full flow into the Hydrotor® Hydraulic Starter - ATEX, which then turns the engine to firing speed.



Without Soft Engagement Valve



With Soft Engagement Valve

This entire starting cycle eliminates shockwaves in the hydraulic circuit, reduces mechanical wear to a minimum and provides a spark-free high engine starting speed for reliable starting at any temperature.

## Easy setting procedure

For optimal starting cycle performance, the different Hydrotor® Hydraulic Starter - ATEX models require different amounts of initial pilot oil. The Soft Engagement Valve will be supplied factory pre-set corresponding to the Hydrotor® Hydraulic Starter - ATEX model, based on hydraulic fluid with a viscosity of 25.3 centistoke at 20 °C and 1.8 centistoke at 50 °C.

Different oil and environment may need slightly different settings. The complete Starting System can be adjusted at any time.

## ATEX Installation

The installation of the Hydrotor® Hydraulic Starter - ATEX is quite simply. It can also be added easily to any existing Hydraulic Starting System. Customer-specific Hose Kits and fittings are available.

The Soft Engagement Valve must always be positioned between the hydraulic source (e.g. Start Valve) and the Hydrotor® Hydraulic Starter - ATEX inlet port.

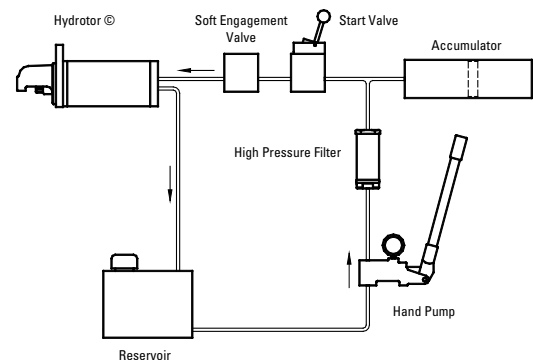
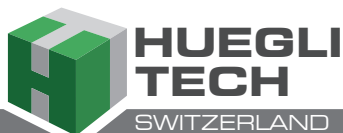


Figure above shows layout of a typical Hydrotor® Hydraulic Starting System with ATEX.

### Local Distributor / Partner:



HUEGLI TECH AG (LTD)  
Murgenthalstrasse 30  
4900 Langenthal Switzerland  
Phone: +41 62 916 50 30  
Fax: +41 62 916 50 35

e-mail: [sales@huegli-tech.com](mailto:sales@huegli-tech.com)  
[www.huegli-tech.com](http://www.huegli-tech.com)

