

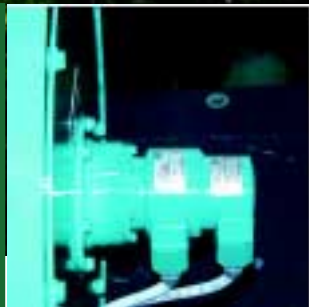


Quiet running and no wear on bends:  
Modified HÜBNER HOG 9 Digital-Tachos on the individual unsprung drives for the wheels of this ultra low floor tram provide precise signals to the speed control.



Highest reliability in continuous operation:  
HÜBNER HOG 10 Digital-Tachos, with insulated bearings for protection against shaft currents, synchronize the drives on this paper machine, and on many other similar plants, „round the clock“.





Wind power under control: POG 90 + FSL, combinations of Digital-Tacho and mechanical rotational speed switch, control and monitor the speed of 1.5 MW wind power generators.



Symbiosis: The FOG 9 + GT 7 combination of Digital-Tacho and Analog-Tacho bestows excellent smooth, synchronous running on this hydraulic motor.



Sea air and ice, heat and moisture – all the extreme weather that this planet can produce: the hoist and boom drives on this 2 x 2,000 t crane ship are fitted with HOG 10 and POG 10 Digital-Tachos from HÜBNER.



Great show: SAAB presents its cars on moving platforms – HÜBNER HOG 8 Digital-Tachos reliably provide the signals to the drive controller for the platform.



Automatic guided vehicles steer precisely to their destination: HÜBNER HOG 71 Digital-Tachos measure the speed of the networked gear motors.



Energy saving:  
 A low maintenance, highly efficient system of 150 heat pumps generates the optimal "educational climate" in a school. POG 9 Digital-Tachos from HÜBNER are incorporated in the speed control system for the asynchronous motors.



Linear measurement and smooth running:  
 In this continuous casting plant, AMG 10 absolute multiturn encoders and water-cooled POG 10 Digital-Tachos provide the signals for the feed speed and the length of the items produced.



No load swinging:  
 HÜBNER HOG 10 + ESL combinations (Digital-Tacho + electronic overspeed switch) control and monitor the movement of the AC brake motors.



Tough in operation:  
HÜBNER POG 10 Digital-Tachos measure the speed of all drives in the machine room and on the chassis of this container crane – in all weathers, day after day.



Quality steel from Sweden:  
15 HOG 9 Digital-Tachos and two high resolution HOG 100 Digital-Tachos are crucially involved in maintaining the quality of the production process in the manufacture and aluminium-zinc laminating of steel sheet.



Positioning even in harsh environments:  
Bearing-less HÜBNER HG 18 Digital-Tachos measure and synchronize the speed of the drives on this vertical lift railway bridge near Rotterdam (➔ Figure 25 on page 19).

Speed regulation in top form:

The evenness of the film is heavily dependent on the smooth running of the calenders. The HÜBNER combination of LowHarmonics® Sinus-Tacho and ExtendedSpeed® angular acceleration sensor provides the speed controller with signals of necessary precision.



Usage in sensitive areas:  
HÜBNER POG 10 Digital-Tachos with stainless steel housings (option) or EEx OG 9 Digital-Tachos with approval for use in explosive hazard areas provide safety in a difficult environment.



On the dot:  
The precision of HÜBNER  
KOG 60 Digital-Tachos with  
10,000 pulses per revolution is  
behind the positioning precision  
of this laser cutting machine.



Safety and comfort:  
HÜBNER rotational speed sensors – Analog-Tachos, Digital-Tachos,  
Sinus-Tachos, or multiturn encoders – ensure gentle acceleration, rapid  
travel, and precise positioning in lifts; the EG 14 built-in Digital-Tacho  
is shown in the picture.

#### Source of Photographs:

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