

DAMEN SUCTION TUBE POSITION INDICATOR (STPI)

GENERAL

The SUCTION TUBE POSITION INDICATOR (STPI) is a sophisticated microprocessor based measuring and monitoring system. The suction tube can consist of one single tube or an upper- and a lower tube connected by a cardan.

For the vertical position the system can be provided with different kind of transmitters. Inclinerometers, pressure-transmitters mounted on the suction tube, or encoders for measuring the paid out length of the winches. For the suction inlet information also a pressure-transmitter is used to measure the draught of the suction pipe inlet.

The horizontal position is measured with rotation angle-transmitters. All input signals are protected against false measurements. If there occurs a faulty signal the error tab will colour red and an error message is shown in the error screen.

When measuring with pressure transmitters corrections for the gravity (by giving in the latitude) and the density of the water are taken into account. A barometer is needed for corrections of the pressure sensors due to air pressure changes. When measuring with winch-encoders corrections for the trim, list, draught and swell compensation are taken into account.

The system consists of a PC with a 15" TFT Flat Panel Monitor, keyboard and a trackball for:

- selection of the various screen pages
- configuring and selecting suction tube dimensions
- interfacing to DGPS and tide-gauge
- calibration and checking input signals

BASIC CONFIGURATION:

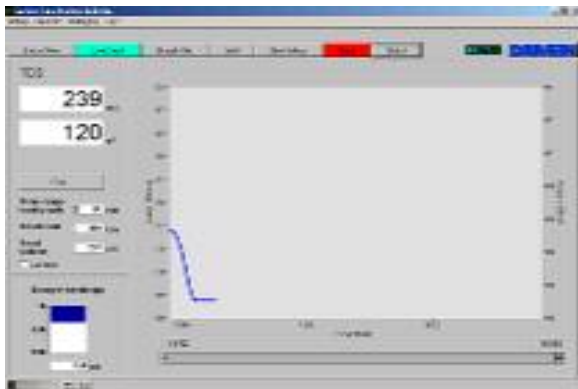
- Position of the suction head in a vertical plane
- Manual input tidal correction
- Depth information of suction head in plain figures
- Necessary transmitters
- Cabinet with PC, UPS, and connections for input signals
- Menu controlled brightness of screen at night time

OPTIONS:

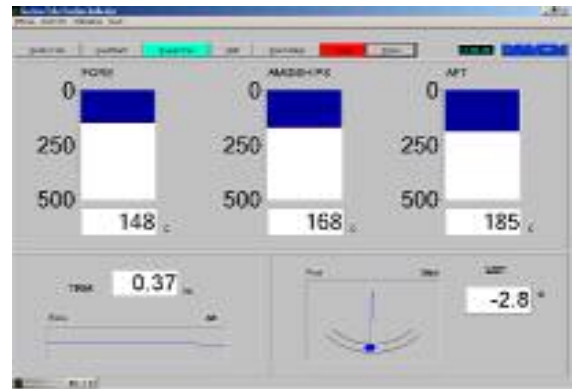
- Selection different suctionhead/suctiontube dimensions
- Position of the suction tube in a horizontal plane
- Integration of TDS system
- Data to ASCII – file
- Data output for interfacing to other systems (i.e. survey system)
- Interfacing a radio tidal receiver
- Digital alarm outputs
- Bargraph for swell compensator
- Selectable angle alarms in screen
- Yield indicator
- Language can be selected, English, French and Dutch

It is also possible to incorporate the Load and Draught and trim information in this system, which provides the customer all necessary information of the dredging process in one program.

In a network configuration the several screens can be displayed at separate monitors. (i.e. dredgemaster and skipper)



The load graph screen



The draught screen

Please contact us for further information or other applications of the program.

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DAMEN DREDGING EQUIPMENT

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