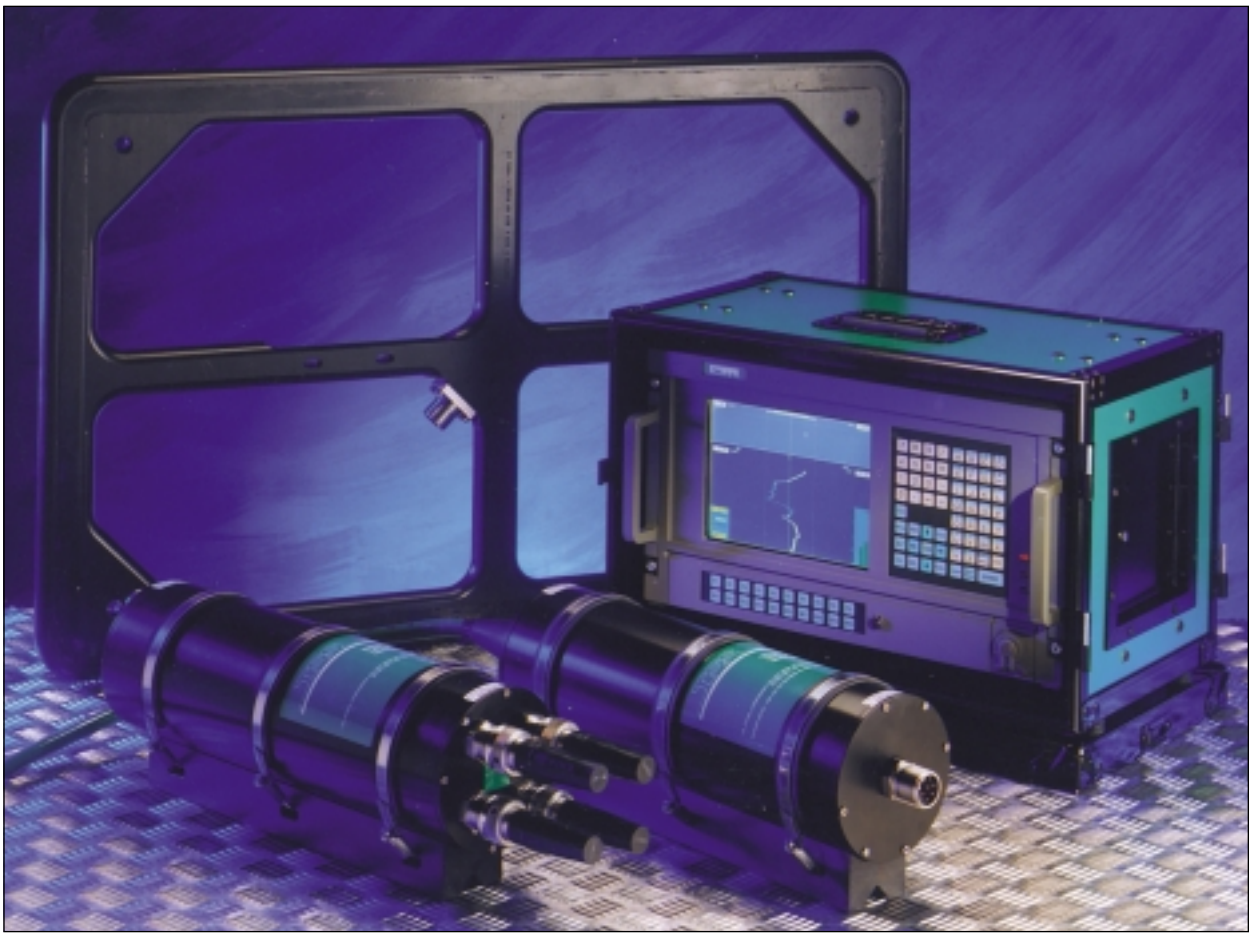
OCEANSCAN

TSS 340

PIPE & CABLE TRACKING SYSTEM



GENERAL DESCRIPTION

"Advanced technology for versatile and accurate pipe & cable surveying"

As commercial. legal and environmental considerations demand that subsea pipelines and cables are correctly installed and maintained in good order, there is a constant demand to verify their location, condition and burial status. This requirement is complicated by the ever changing seabed topography.

The TSS 340 is a radically different approach to pipe and cable surveys. Target detection is by pulse induction which provides considerable advantages over magnetometer based systems.

The TSS 340 can locate any conductive material, exposed or buried. The TSS 340 outputs highly accurate survey data, on any type of subsea pipeline or cable from large gaslines down to small non-armoured communications cables. It is also effective for use in ordnance retrieval and debris clearance projects.

The major advantage of the TSS 340 is that terrestrial magnetism has no effect on data output, which allows accurate survey in areas around subsea structures.

A fully integrated system, the TSS 340 combines location, steerage and accurate depth of burial survey data to suit a wide variety of operations.

- ***Pipeline installation, burial and survey***
- ***Cable installation, burial and survey***
- ***Salvage operations***
- ***Ordnance retrieval***
- ***Site and debris clearance***
- ***Mine countermeasures***

Features	Benefits
Pulse Induction Technology	***Detects any conductive target, cancels out subsea vehicle regardless of heading and allows survey around subsea structures***
Comprehensive software display and menu structure	***Simple to use***
Quality Control envelope and flag	***On-line and logged indication of system performance limits***
Modular design of system components	***Installation onto a wide range of subsea vehicles***
Fully integrated system with altimeter, spares and documentation	***Simple to install and service***
Comprehensive data output string	***Ease of data processing and interface to survey equipment***

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Technical Specifications:

SUBSEA ELECTRONIC POD (SEP)	**Dimensions**	140mmØ x 460mm
	Weight	In air: 10.0Kg In water: 2.0Kg
	SDC Communications	2-wire 20mA digital current loop or 4-wire 20mA digital current loop or RS232 via one or two twisted pair, or multiplexer
POWER SUPPLY POD (PSU)	**Dimensions**	140mmØ x 440mm
	Weight	In air: 10Kg In water: 2.0Kg
	Voltage Input	110V a.c. (input range 100-130V a.c.) Option: 240V a.c. (input range 200-260V a.c.)
	ROV Connection	Via 8 way water proof connector
SEARCH COILS	**Dimensions**	1000mm x 600mm x 30mm (3 off required)
	Weight	In air: 8.0Kg each In water 2.5Kg each
	Material	High density polyethylene (HDPE)
	Connection Cable	4m length Option: 6m length
SURFACE DISPLAY CONSOLE (SDC)	**SDC Hardware**	102-Key keyboard, 14" colour VGA monitor, standard 19" rack mount housing weighing 40.0Kg
	Description	80386DX 25MHZ running MS-DOS Version 5.0
	Disk Size	Hard drive: 210MB Floppy drive: 1.4MB (31/2")
	Ports	4 serial, 2 parallel
	Interface to	20mA current loop, datalogger. altimeter, printer, video in/out PAL format (optional NTSC format). Option: Analogue output
	Voltage Input	110/240V a.c. (input range 98-132V a.c./196-264V a.c.)
	Power Consumption	400VA
	Input Frequency	48-62Hz
	Shock Resistance	Operating: Better than 5g for <10mS Non operating: Better than 40g for <10mS
COIL MOUNTED ALTIMETER	**Dimensions**	47mmØ x 155mm
	Frequency	500KHz
	Range	Min: 10cm Max: 3m
	Connection Cable	4m length Option: 7m length
DEPTH RATING	**All subsea components are depth rated to 3000mm. Option: 3000m**	
FIELD SUPPORT KIT	**Supplied as part of the recommended system**	

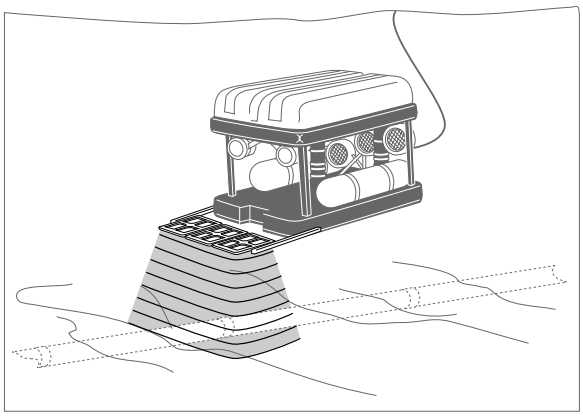
Typical Tracking Chart: Standard Pipeline

Diameter = 91cm (36 inch)

True Lateral Offset (cm)

	±290	±270	±250	±230	±210	±190	±170	±150	±130	±110	±90	±70	±50	±30	±10	0
20	???	???	???	???	???	???	???	???	???	???	???	???	???	???	???	???
40	???	???	-21	+7	+1	-3	-3	+1	+4	+3	+1	-3	-6	-6	-1	+1
60	???	???	-7	-3	+3	+5	+5	+5	+6	+4	+1	-1	-2	-1	+2	+3
80	???	???	-3	+7	+6	+11	+9	+8	+6	+4	+2	+1	0	+1	+4	+3
100	???	???	???	+3	+2	+8	+8	+8	+6	+3	+2	+1	+1	+2	+3	+4
120	???	???	???	+8	+4	+2	+5	+4	+1	-1	-2	-3	-3	-2	0	0
140	???	???	???	???	+1	+1	+1	0	-1	-3	-4	-4	-4	-3	-2	-2
160	TOR	???	???	???	+9	+2	-1	-2	-2	-3	-3	-3	-2	-1	0	0
180		TOR	???	???	???	-3	-2	-3	-5	-4	-5	-4	-3	-2	-2	-2
200			TOR	???	???	???	???	-10	-8	-7	-4	-3	-1	+2	+2	0
220				TOR	???	???	???	???	???	+10	-5	-4	-2	+1	TOR	TOR

Target Scaling = 2260µV Threshold = 15µV



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