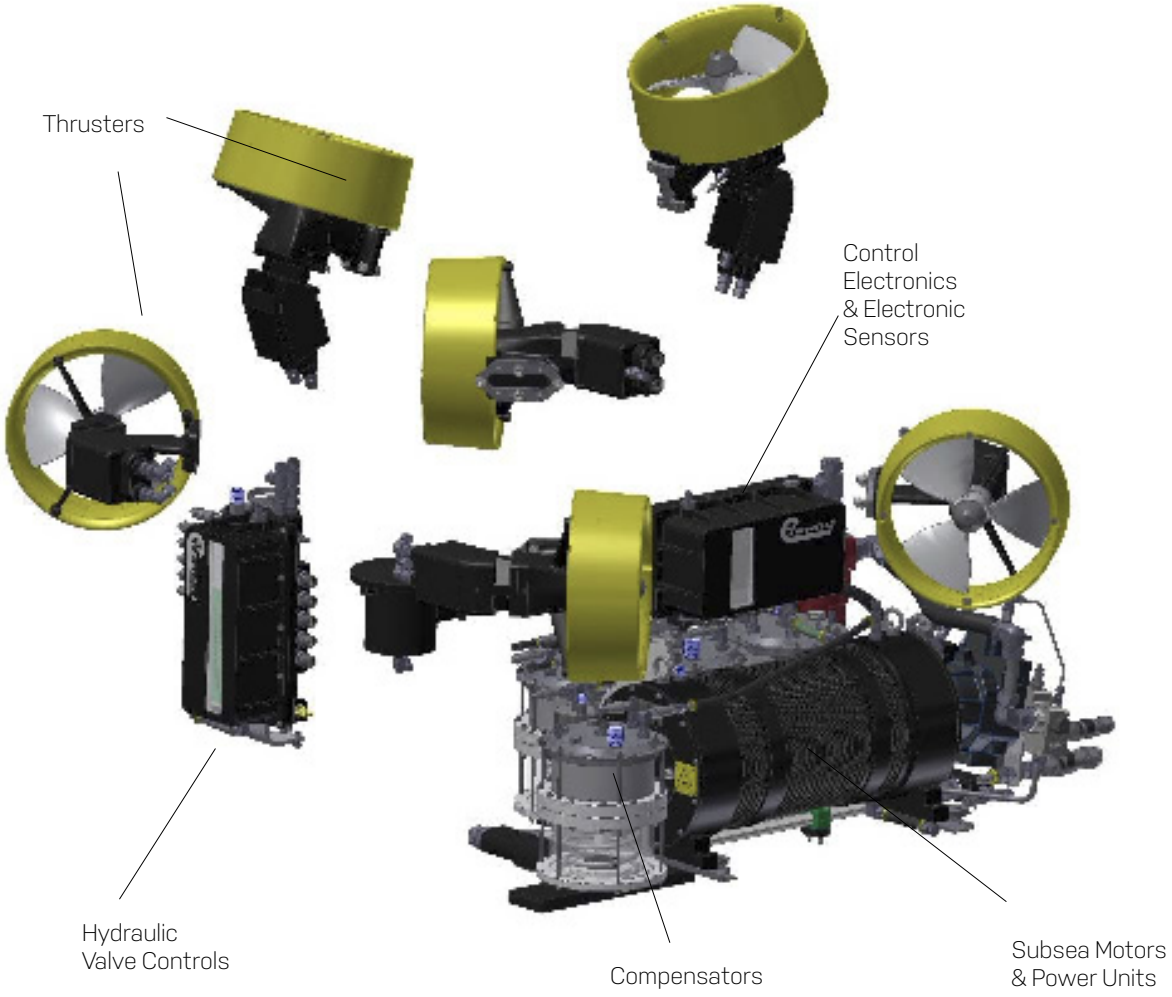
CURVETECH®
SALES
BROCHURE

FOR ALL YOUR SUBSEA COMPONENT NEEDS

Curvetech® products are part of the Soil Machine Dynamics Ltd (SMD) family of products. With over 20 years knowledge and experience of providing integrated solutions for subsea and marine applications Curvetech® subsea components provide cost effective, rugged and reliable solutions for use with marine and subsea operators, system integrators and Original Equipment Manufacturers (OEMs). Covering a range of applications, the Curvetech® product range includes:

- → Subsea vehicle propulsion systems
- → Subsea motors and hydraulic power units
- → Hydraulic valve control
- → Compensators
- → Control systems and surface high voltage power units
- → Subsea sensors and electrical control cards
- → Subsea tooling
- → Work Class ROV skid units



THRUSTERS

SMD offer a range of hydraulic thrusters available for subsea vehicle propulsion applications. Curvetech® Thrusters incorporate well proven robust designs that have been used on work class ROVs for over twenty years and offer impressive performance with unparalleled reliability.

The latest HTE series thrusters are available in a range of sizes. The units are easy to maintain for minimal through life costs.

FEATURES

- → Well proven robust design
- → Asymmetric design provides near equal forward & reverse thrust
- → Thrusters designed to minimise cavitation
- → High efficiency motors
- → Low through-life costs
- → Optional thruster guards
- → Optional speed sensor[1]

THRUSTERS

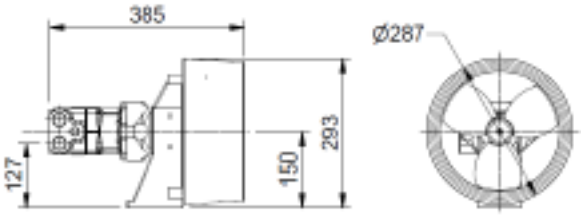
PART NUMBER	MAX STATIC THRUST @250 BAR/3626 PSI		MAX OPERATING PRESSURE (MAXIMUM PEAK PRESSURE)		PROPELLER DIAMETER		WEIGHT IN AIR		MOTOR CAPACITY	
	KGF	KGF	BAR	PSI	MM	INCH	KG	LBS	CM^3/REV	$INCH^3$/REV
HT_230BA[2]	200	440	350 (420)	5076 (6091)	230	9.0	14	30.9	10	0.6
HTE_300BA-23MK2	250	551	350 (400)	5076 (5801)	300	12.2	18	39.7	32	1.9
HTE_300BA-32MK2	350	771	350 (400)	5076 (5801)	300	12.2	18	39.7	32	1.9
HTE_380BA-32	370	815	350 (400)	5076 (5801)	380	15.0	27	59.5	32	1.9
HTE_390BA-32	310	683	350 (400)	5076 (5801)	390	15.4	27	59.5	32	1.9
HTE_390BA-45	440	970	350 (400)	5076 (5801)	390	15.4	27	59.5	45	2.7
HTE_430-63	540	1190	350 (400)	5076 (5801)	430	16.9	35	77.2	63	3.8
HTE_500BA	630	1388	250 (350)	3625 (5876)	500	19.7	51	112.4	81	4.9
HT_750BA-195[2]	1450	3196	350 (400)	5076 (5801)	750	29.5	175	385.8	180	10.9

[1] Speed sensor option is available on request for HTE models only.
[2] Curvetech® HT Thrusters for SMD/Hydrovision legacy equipment.

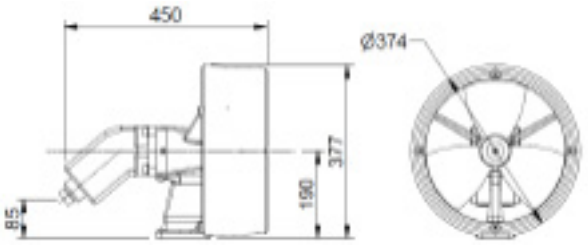
ACCESSORIES

PART NUMBER	DESCRIPTION
HTE_300BA-SP1	ASSEMBLY SPARES KIT - SEALS THRUSTER HTE_300-380-430
HTE_300BA-SP2	ASSEMBLY SPARES KIT -BEARINGS THRUSTER HTE_300-380-430
HTE-300BA-SP3	ASSEMBLY THRUSTER MAINTENANCE TOOL KIT
HTE_500BA-SP1	ASSEMBLY SPARES KIT -SEALS THRUSTER HTE_500
HTE_500BA-SP2	ASSEMBLY SPARES KIT -BEARINGS THRUSTER HTE_500

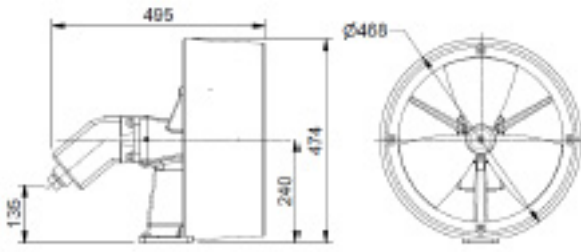
THRUSTERS



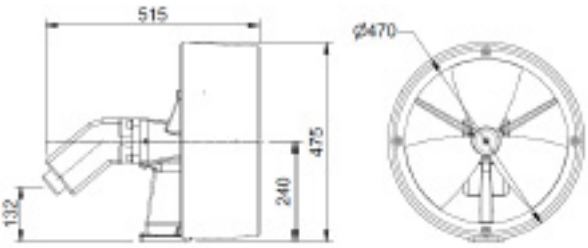
HT_230BA



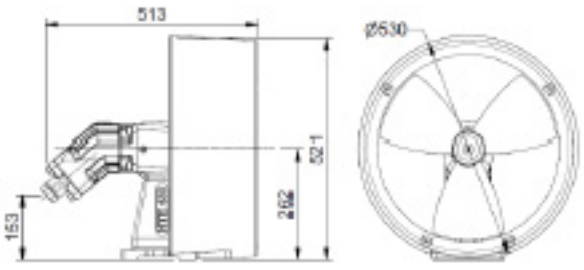
HTE_430-63



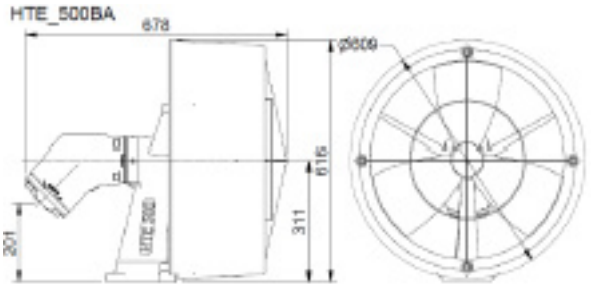
HTE_300BA-23MK2 / HTE_300BA-32MK2



HTE_500BA

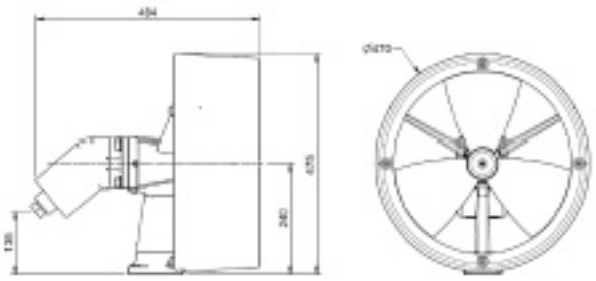


HTE_380BA-32 HTE_380BA-32

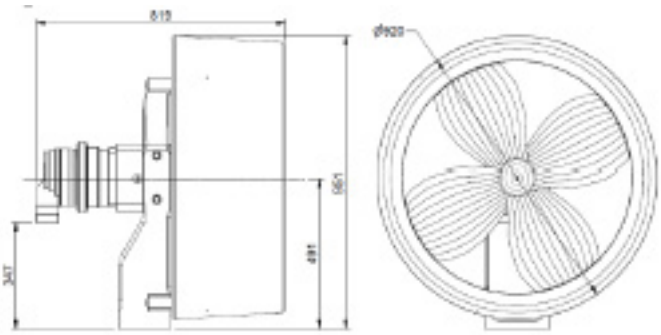


HTE_390BA-32

THRUSTERS



HTE_390BA-45



HT_750BA-195

Note
Images shown are not to scale and are for information purposes only.

SUBSEA ELECTRIC MOTORS (3KV+)

SMD offer a range of oil filled submersible high voltage electric motors suitable for hydraulic power generation or running a variety of water pumps. The units are designed for work class ROVs, trenchers, ploughs, dredge systems and other customer design applications which demand long term reliability and high performance subsea. Aluminium or stainless steel versions are available and customers can choose from a range of electrical connector options. Curvetech® hydraulic motor units are dual-ended and can interface with a range of industry standard pumps. Alternatively SMD can provide a fully integrated subsea power unit with pump units fitted – please refer to the Curvetech® Subsea Power Unit datasheet for further details.

Each unit is tested and certified to run at full power for prolonged periods of time. This is achieved using a unique winding technique which ensures cooler operation. Built in sensors monitor winding temperature as opposed to oil temperature and all motors incorporate oversized bearings for smooth concentric running.

FEATURES

3kV High voltage windings for optimum subsea operation
- → Adaptable for use with industry standard hydraulic & water pumps
- → Internal oil cooled with external housing cooling ribs
- → 2 year warranty as standard
- → Optional surface power
- → distribution equipment for ease of
- → surface control system integration

End plates can be customised to client pump requirements.

SUBSEA ELECTRIC MOTORS (3KV+)

ELECTRICAL SPECIFICATIONS

PART NUMBER	POWER		POLES	FREQUENCY HZ	SPEED RPM	VOLTAGE	CONNECTOR
	SHP	KW					
AF0062	11.5	8.5	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AJ3256	20	15	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AJ3029	29	22	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AJ9867	60	45	2	50 / 60	1450 / 1750	2400 / 3000	Burton
AJ9869	100	75	2	50 / 60	1450 / 1750	2400 / 3000	Burton
AG9602	125	93	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AJ9871	150	110	2	50 / 60	2900 / 3500	2400 / 3000	Burton
AJ2139	200 (250*)	150 (186*)	4	50 / 60	2900 / 3500	2400 / 3000	Burton
AD6654	300	225	4	50 / 60	1450 / 1750	2400 / 3000	5m Harness
AH2874	400	330	4	50 / 60	2900 / 3500	2400 / 3000	Burton
AH8703	535	400	4	50 / 60	1450 / 1750	2400 / 3000	Burton

*Boost mode

MECHANICAL SPECIFICATIONS

PART NUMBER	WEIGHT IN AIR		LENGTH (L)		WIDTH (W)		HEIGHT (H)		MOUNTING BOLT CENTRES (MBC)		MOUNTING CENTRE (A)	
	KG	LBS	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
AF0062	119	263	512	20.2	274	10.8	355	14.0	532	21.0	130	5.1
AJ3256	80	177	485	19.1	283	11.2	294	11.6	426	16.8	170	6.7
AJ3029	88	194	515	20.3	283	11.2	294	11.6	456	18.0	170	6.7
AJ9867	126	278	520	20.5	320	12.6	398	15.7	590	23.2	272	10.7
AJ9869	186	410	685	27.0	320	12.6	398	15.7	829	32.6	272	10.7
AG9602	240	529	871	34.3	310	12.2	310	12.2	829	32.6	230	9.1
AJ9871	233	514	610	24.1	395	15.6	458	18.0	550	21.7	140	5.5
AJ2139	384	847	832	32.8	374	14.8	486	19.1	912	35.9	270	10.6
AD6654	742	1636	860	1896	562	22.2	617	24.3	860	33.9	440	17.4
AH2874	748	1649	1000	39.4	533	21.0	612	24.1	627	24.7	391	15.4
AH8703	2179	4804	1363	53.7	580	22.8	690	27.2	1463	57.6	452	17.8

[1] Refer to general arrangement drawings for further details.
[2] Burton connectors supplied as standard – other connector configurations can be supplied on request.

SURFACE CONTROL ACCESSORIES

Part Number	Description
AJ5407	Assembly LVPDU Low Power (≤75kW, 440VAC)
AJ5408	Assembly LVPDU Low Power (≤75kW, 440VAC) & TMS
AJ5409	Assembly LVPDU High Power (>75kW to 150kW, 440VAC)
AJ5410	Assembly LVPDU Low Power (>75kW to 150kW, 440VAC) & TMS
AJ5401	Assembly HVPDU Low Power (≤75kW, 440VAC)
AJ5402	Assembly HVPDU Low Power (≤75kW, 440VAC) & TMS
AJ5403	Assembly HVPDU High Power (>75kW to 150kW, 440VAC)
AJ5404	Assembly HVPDU Low Power (>75kW to 150kW, 440VAC) & TMS
To suit system	DVECSII Control System

SUBSEA POWER UNITS

SMD offer a range of oil filled submersible power packs suitable for hydraulic power generation or running a variety of water pumps. The units are designed for work class ROVs, trenchers, ploughs, dredge systems and other customer design applications which demand long term reliability and high performance subsea. Aluminium or stainless steel versions are available and customers can choose from a range of electrical connector options. Curvetech™ Power Units are dual-ended and can interface with a range of industry standard pumps mounted on one or both ends of the unit.

Each unit is tested and certified to run at full power for prolonged periods of time. This is achieved using a unique winding technique which ensures cooler operation. Built in sensors monitor winding temperature as opposed to oil temperature and all motors incorporate oversized bearings for smooth concentric running.

FEATURES

- → 3kV High voltage windings for optimum subsea operation
- → Highly configurable pump options available (single, double and through drive)
- → Adaptable for use with industry standard hydraulic & water pumps
- → Internal oil cooled with external housing cooling ribs
- → 2 year warranty as standard
- → Optional DVECSII surface control equipment

POWER UNITS

ELECTRICAL SPECIFICATIONS

PART NUMBER	POWER		POLES	FREQUENCY HZ	SPEED RPM	VOLTAGE	CONNECTOR
	SHP	KW					
AF0035	11.5	8.5	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AG2106	11.5	8.5	4	50 / 60	1450 / 1750	2400 / 3000	Seacon
AA9962	11.5	8.5	4	50 / 60	1450 / 1750	2400 / 3000	Impulse
AJ3255	20	15	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AJ3030	29	22	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AD8190	29	22	4	50 / 60	1450 / 1750	2400 / 3000	Seacon
AC8830	60	45	4	50 / 60	2900 / 3500	2400 / 3000	Burton
AE6464	100	75	4	50 / 60	2900 / 3500	2400 / 3000	Burton
AG9601	125	93	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AH9640	150	110	4	50 / 60	2900 / 3500	2400 / 3000	Burton
AJ2138	250 (250*)	188 (186*)	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AD6653	300	225	4	50 / 60	1450 / 1750	2400 / 3000	5m Harness
AH4541	400	300	4	50 / 60	1450 / 1750	2400 / 3000	Burton
AF5658	535	400	4	50 / 60	1450 / 1750	2400 / 3000	Burton

HYDRAULIC SPECIFICATIONS

PART NUMBER	MAIN PUMP 1				MAIN PUMP 2				NOTES
	TYPE	CC	NOMINAL / PEAK PRESSURE (BAR)	MAX FLOW (LPM)	TYPE	CC	NOMINAL / PEAK PRESSURE (BAR)	MAX FLOW (LPM)	
AF0035	A10VSO[1]	18cc	280 / 350	31.5	-	-	-	-	
AG2106	A10VSO[1]	18cc	280 / 350	31.5	-	-	-	-	
AA9962	A10VSO[1]	18cc	280 / 350	31.5	-	-	-	-	
AJ3255	MPV/R-01[2]	28cc	300 / 350	49.0	-	-	-	-	
AJ3030	MPV/R-01[2]	28cc	300 / 350	49.0	-	-	-	-	
AD8190	A10VSO[1]	32cc	280 / 350	56.0	-	-	-	-	
AC8830	MPV/R-01[2]	28cc	300 / 350	98.0	-[3]	-	-	-	
AE6464	A7VO[1]	55cc	350 / 400	137.0	-[3]	-	-	-	
AG9601	A10VSO[1]	140cc	280 / 350	245.0	-[3]	-	-	-	
AH9640	A7VO[1]	55cc	350 / 400	180.0	MPV/R-01[2]	28cc	300 / 350	93.0	
AJ2138	K3VL[4]	200cc	320 / 350	350.0	K3VL[4]	140cc	320 / 350	245.0	Integrated motor cooling
AH4541	90L180[5]	180cc	450 / 480	315.0	90L180[5]	180cc	450 / 480	315.0	Integrated motor cooling
AF5658	90L180[5]	180cc	450 / 480	315.0	90L180[5]	180cc	450 / 480	315.0	LHS has 4x pumps in total including additional 1x55cc & 1x 17cc pumps
	90L180[5]	250cc	450 / 480	437.5	90L18 90L180[5] 05	130cc	450 / 480	315.0	RHS has 3x pumps in total including additional 1x18cc pum

[1] Bosch Rexroth
[2] Linde
[3] Blanking plate provided for use with 3rd party pump
[4] Kawasaki
[5] Sauer Danfoss
[6] Standard pump options shown. Alternative pump arrangements can be provided to meet customer specific requirements.

COMPENSATORS

With over 20 years of subsea manufacturing experience SMD can offer a range of Curvetech® compensators from a wide range of field proven reliable configurations. All Curvetech® compensators are designed for long-term reliability, simplicity and ease of use.

Monitoring vehicle oil condition is crucial during operations to ensure that the vehicle is functioning correctly. Entrained air, milky looking oil or even small items of debris within the oil are early warning signs that something is amiss with the machine and needs assessment. Capturing these issues early can significantly reduce consequential damage to other hydraulic components within the system. Curvetech® compensators (2.75l, 3l & 6l) have been designed with 100% visually clear windows allowing operators to easily view the oil condition. Industry standard and high reliability Rota transducers are also available and are retrofitable to all compatible units. Integrated relief valves and air bleed points are included on the majority of Curvetech® compensator units and rolling diaphragms ensure no sliding seal surfaces for ultimate system integrity. Curvetech® compensators are compatible with mineral oils and HEES oils as standard —for other oil types please enquire.

Optional mounting kits are also available which allow reduced swap-out time—quick mounting and replacement of compensators is achieved via a single bolt whilst keeping them rigidly mounted to the vehicle for operations.

FEATURES

- → Range of standard sizes.
- → Range of spring rates.
- → Simple & rugged construction.
- → Easy maintenance.
- → Available with analogue alarms for

COMPENSATORS

	LITRES	PINTS	BAR	PSI	BAR	PSI				
EV_4002-xx	0.50	0.88	0.13 0.17	1.9 2.5	0.57 0.34	8.3 5.0	No No	Low level alarm kit option Part Number EV_4012-1		1 x 1/4"BSP & 1 x 3/8"BSP
EV_4001-xx	1.5	2.64	0.24 0.12 0.08	3.5 1.7 1.2	0.88 0.44 0.29	12.8 6.4 4.3	No No No	Level sensors and alarm kit options Part Number EV_4011-xx Contact SMD for options		1/2" NPT
EV_4003-xx	2.75	4.84	0.17 0.40 1.00	2.5 6.0 14.5	0.34 0.80 2.00	5.0 12.0 29.0	No Yes Yes	None Subconn/Impulse Seacon/ Burton	None MCBH3M MCBH8FSS MHDG-9-BCR 5507-1508 5507-1508	5 x 9/16"UNF 3 x 7/16"UNF & 2 x 9/16"UNF
EV_4007-xx	3.00	5.28	0.23 0.90	3.3 13.1	0.41 1.60	5.9 23.2	No Yes	None Subconn/Impulse Burton Seacon	None MCBH3M 5507-1508 5507-1508	5 x 3/8"BSP 5 x 9/16"-18 (SAE #6) 3 x 1/2"BSP & 2 x 3/4"BSP
EV_4006-xx	6.00	10.56	0.07 0.14 0.25	1.0 2.0 3.6	0.41 0.83 1.67	6.0 12.0 24.2	No Yes	None Subconn/Impulse Burton Seacon	None MCBH3M 5507-1508 5507-1508	3 x 1/2"BSP & 2 x 3/4"BSP 5 x UNF 9/16"-18 (SAE#6) 2 x 3/4"BSP & 2 x 3/8"BSP & 3 x 1/4"BSP 2 x 3/4"BSP & 2 x 3/8"BSP & 3 x 1/4"BSP & 1x1" SAE3000

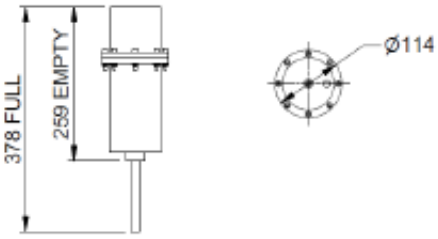
Larger capacity (11 - 100 Litre) versions are available on request

Notes

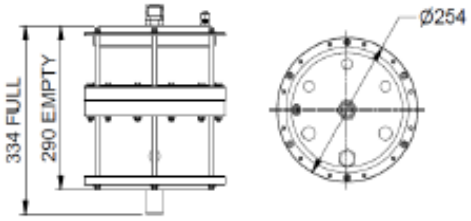
[1] See following table for standard compensator assemblies.

[2] Customised compensators can also be provided to suit specific customer requirements subject to minimum order values.

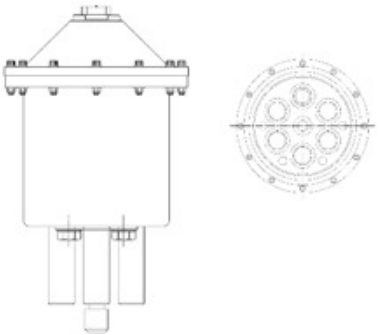
COMPENSATORS



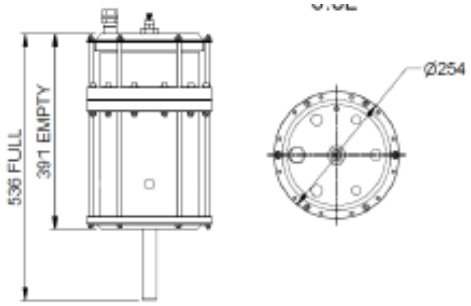
EV4002-1 MK-2 0.5L



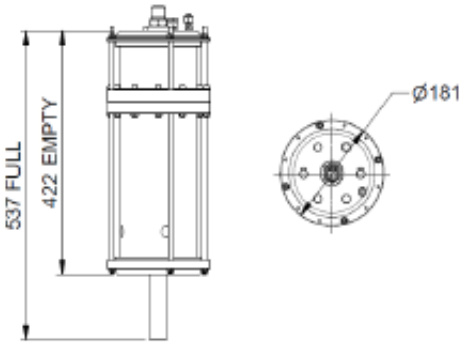
EV4007-1 3.0L



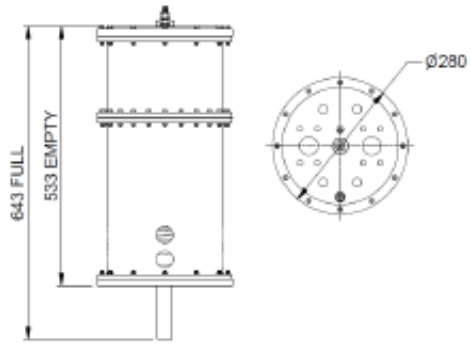
EV4001-2 1.5L



EV4006-7 6.0L

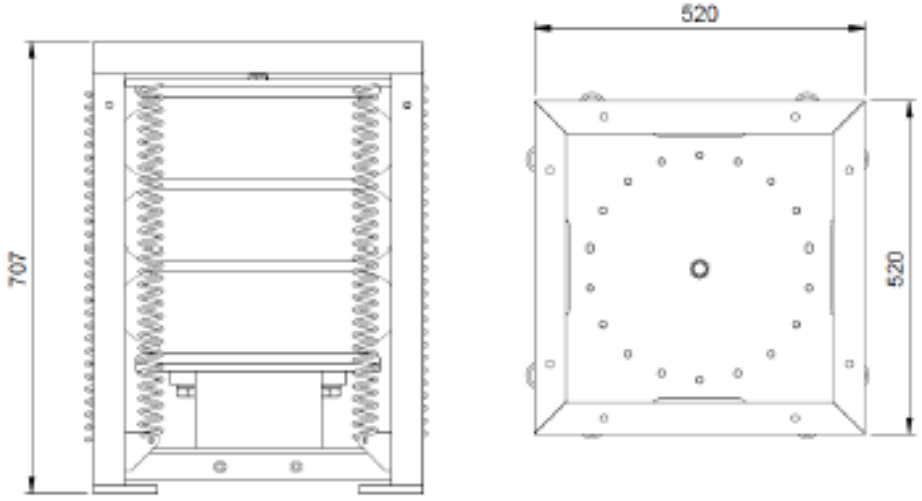


EV4003-31 2.75L

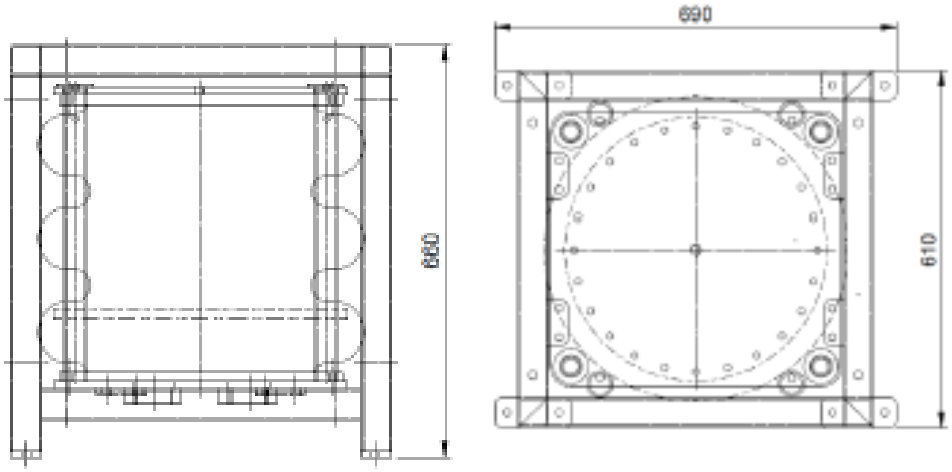


EV4010-7 10.0L

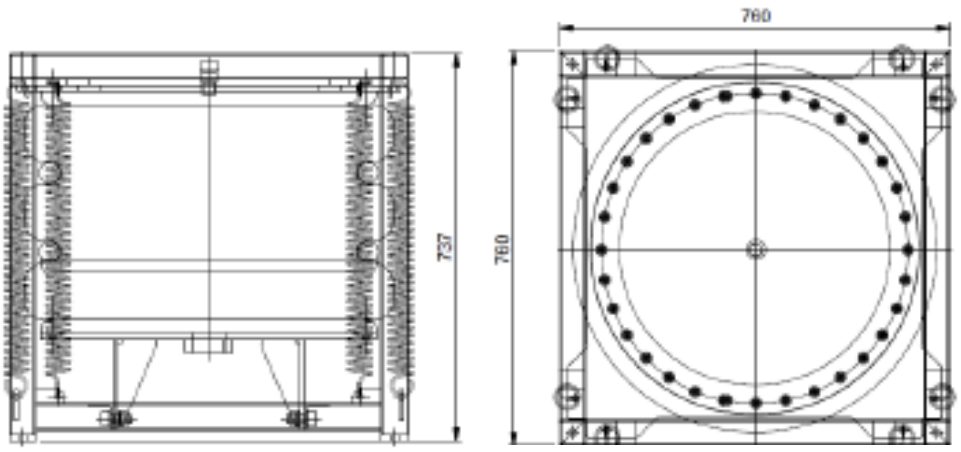
COMPENSATORS



EV4032-1 45.0L



EV4030-1 45.0L



Note
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STANDARD COMPENSATOR PART NUMBERS & SPECIFICATIONS

PART NUMBER	CAPACITY		PRESSURE AT EMPTY		PRESSURE AT FULL		TRANSDUCER	CONNECTOR	CONNECTOR SPEC	FREE PORT DETAILS[1]
	LITRES	PINTS	BAR	PSI	BAR	PSI				
EV_4002-1 Mk-2	0.50	0.88	0.13	1.9	0.57	8.3	–	–	–	1 x 1/4"BSP & 1 x 3/8"BSP
EV_4002-8 Mk-2	0.50	0.88	0.17	2.5	0.34	5.0	–	–	–	1 x 1/4"BSP & 1 x 3/8"BSP
EV_4001-2	1.5	2.64	0.24	3.5	0.88	12.8	Yes	–	–	1/2" NPT
EV_4001-3	1.5	2.64	0.12	1.7	0.44	6.4	Yes	–	–	1/2" NPT
EV_4001-4	1.5	2.64	0.08	1.2	0.29	4.3	Yes	–	–	1/2" NPT
EV_4003-28	2.75	4.84	0.17	2.5	0.34	5.0	Yes	Subconn	MCBH3M	5 x 9/16"UNF
EV_4003-29	2.75	4.84	0.17	2.5	0.34	5.0	–	–	–	5 x 9/16"UNF
EV_4003-30	2.75	4.84	0.40	6.0	0.80	12.0	Yes	Subconn	MCBH3M	5 x 9/16"UNF
EV_4003-31	2.75	4.84	0.17	2.5	0.34	5.0	Yes	Burton	5507-1508	5 x 9/16"UNF
EV_4003-32	2.75	4.84	1.00	14.5	2.00	29.0	Yes	Burton	5507-1508	5 x 9/16"UNF
EV_4003-33	2.75	4.84	0.17	2.5	0.34	5.0	Yes	Subconn	MCBH8FSS	5 x 9/16"UNF
EV_4003-34	2.75	4.84	1.00	14.5	2.00	29.0	Yes	Subconn	MCBH8FSS	5 x 9/16"UNF
EV_4003-35	2.75	4.84	1.00	14.5	2.00	29.0	Yes	Seacon	5507-1508	5 x 9/16"UNF
EV_4003-36	2.75	4.84	1.00	14.5	2.00	29.0	–	–	–	5 x 9/16"UNF
EV_4003-38	2.75	4.84	0.17	2.5	0.34	5.0	Yes	Seacon	5507-1508	5 x 9/16"UNF
EV_4003-39	2.75	4.84	0.17	2.5	0.34	5.0	Yes	Subconn	MHDG-9-BCR	3 x 7/16"UNF & 2 x 9/16"UNF
EV_4003-41	2.75	4.84	0.17	2.5	0.34	5.0	Yes	Subconn	MHDG-9-BCR	3 x 7/16"UNF & 2 x 9/16"UNF
EV_4007-1	3.00	5.28	0.90	13.1	1.60	23.2	Yes	Burton	5507-1508	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4007-2	3.00	5.28	0.23	3.3	0.41	5.9	Yes	Burton	5507-1508	5 x 3/8"BSP
EV_4007-3	3.00	5.28	0.90	13.1	1.60	23.2	Yes	Subconn	MCBH3M	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4007-4	3.00	5.28	0.23	3.3	0.41	5.9	Yes	Subconn	MCBH3M	5 x 3/8"BSP
EV_4007-5	3.00	5.28	0.23	3.3	0.41	5.9	Yes	Seacon	5507-1508	5 x 9/16"-18 (SAE #6)

STANDARD COMPENSATOR PART NUMBERS & SPECIFICATIONS

PART NUMBER	CAPACITY		PRESSURE AT EMPTY		PRESSURE AT FULL		TRANSDUCER	CONNECTOR	CONNECTOR SPEC	FREE PORT DETAILS[1]
	LITRES	PINTS	BAR	PSI	BAR	PSI				
EV_4006-7	6.00	10.56	0.14	2.0	0.83	12.0	Yes	Subconn	MCBH3M	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4006-8	6.00	10.56	0.14	2.0	0.83	12.0	Yes	Subconn	MCBH3M	2 x 3/4"BSP & 2 x 3/8"BSP & 3 x 1/4"BSP & 1x1" SAE3000
EV_4006-9	6.00	10.56	0.25	3.6	1.70	24.7	Yes	Subconn	MCBH3M	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4006-11	6.00	10.56	0.14	2.0	0.83	12.0	–	–	–	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4006-12	6.00	10.56	0.07	1.0	0.41	6.0	Yes	Seacon	5507-1508	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4006-13	6.00	10.56	0.14	2.0	0.83	12.0	Yes	Burton	5507-1508	2 x 3/4"BSP & 2 x 3/8"BSP & 3 x 1/4"BSP & 1x1" SAE3000
EV_4006-15	6.00	10.56	0.14	2.0	0.83	12.0	Yes	Subconn	MCBHFSS	2 x 3/4"BSP & 2 x 3/8"BSP & 3 x 1/4"BSP
EV_4006-16	6.00	10.56	0.25	3.6	1.67	24.2	Yes	Burton	5507-1508	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4006-17	6.00	10.56	0.14	2.0	0.83	12.0	Yes	Seacon	5507-1508	2 x 3/4"BSP & 2 x 3/8"BSP & 3 x 1/4"BSP & 1x1" SAE3000
EV_4006-18	6.00	10.56	0.07	1.0	0.41	6.0	Yes	Burton	5507-1508	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4006-19	6.00	10.56	0.25	3.6	1.67	24.2	–	–	–	3 x 1/2"BSP & 2 x 3/4"BSP
EV_4006-20	6.00	10.56	0.07	1.0	0.41	6.0	Yes	Seacon	5507-1508	5 x UNF 9/16"-18 (SAE#6)
EV_4006-21	6.00	10.56	0.25	3.6	1.67	24.2	Yes	Seacon	5507-1508	3 x 1/2"BSP & 2 x 3/4"BSP

ACCESSORIES

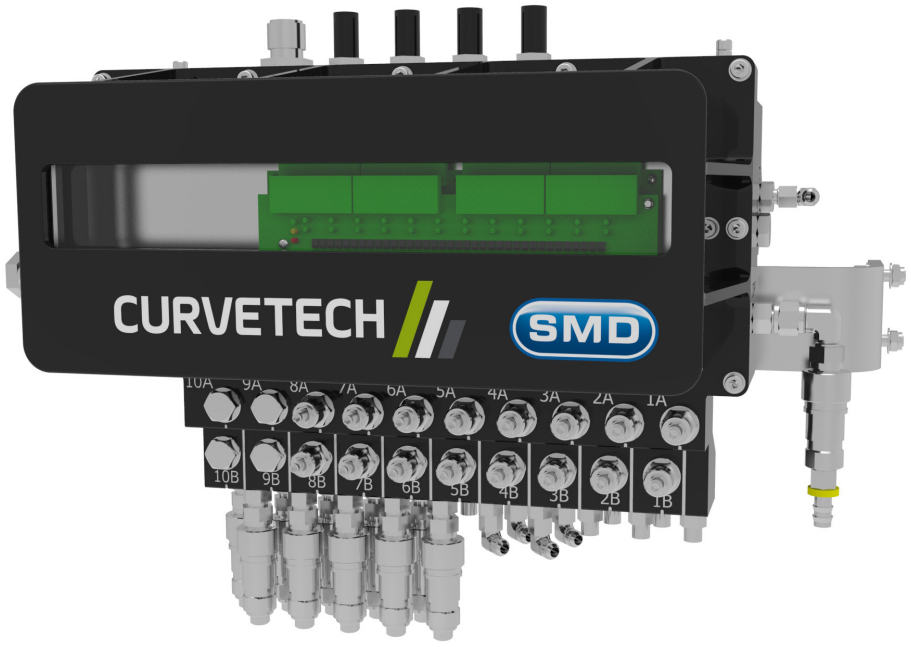
PART NUMBER	DESCRIPTION	SUITABLE FOR COMPENSATORS				
		EV_4002-XX	EV_4001-XX	EV_4003-XX	EV_4007-XX	EV_4006-XX
EV_4012-1	Assembly Kit 1PT Compensator Empty Indicator c/w whip	Yes	5076 (6091)	230		9.0
AK1464	Compensator Mounting Kit	–	Yes	–	–	–
AK1472	Compensator Fill Point, 30psi Relief and Outlet	–	Yes	–	–	–
EV_4001-SP	Seal Kit	–	Yes	–	–	–
AJ7395	Compensator Spring Compression Tool Kit	–	–	Yes	Yes	Yes
AJ9084	Compensator (Single Spring) Mounting Kit	–	–	Yes	–	–
AJ9157	Compensator (Dual Spring) Mounting Kit	–	–	Yes	–	–
EV_4003-SP MK2	Seal Kit	–	–	Yes	–	–
AJ9085	Compensator Quick Mounting Kit	–	–	–	Yes	Yes
EV_4006-SP MK2	Seal Kit	–	–	–	Yes	Yes
AK1679	Compensator Fill Unit (Bug Bottle)	Yes	Yes	Yes	Yes	Yes
AK0722	Tool Oil Transfer Pump and Filter	15lpm maximum flow rate – can be used for filling of large compensation volumes. Maximum fill level 80% of compensator volume.				

HYDRAULIC VALVE PACKS

Curvetech™ Hydraulic Valve Packs from SMD are available equipped with solenoid, or servo controlled valves.A varying number of functions, flow rates and pressures can be offered by these lightweight and compact components. All packs include internal valve drive electronics addressed using a RS485 communication protocol (details available). Diagnostic LEDs are visible through the clear polycarbonate valve manifold cover.

FEATURES

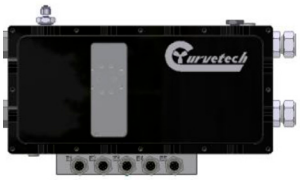
- → 2, 4, 8 & 12 function versions available
- → Variety of valve types & configurations
- → Built-in drive electronics
- → Temperature, moisture & pressure sensors



HYDRAULIC VALVE PACKS

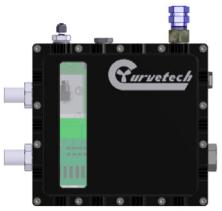
STANDARD THRUSTER CONTROL UNIT SPECIFICATIONS

PART NUMBER	NO. OF THRUSTER CONTROLS	INTEGRATED PUMP CONTROL	FLOW		ELECTRICAL	
			LPM	GPM	CONNECTORS[1]	STD. COMMS.
AH4324	6	Yes	57	12.54	Input – Burton I/O – 3x Burton	RS485
AH6631	7	Yes	57	12.54	Input – Burton I/O – 3x Burton	RS485
AJ3965	8	Yes	57/114	12.54/25.08	Input – Burton I/O – 3x Burton	RS485



iTCU – Thruster Control Unit

iHCU 2-Station Hi Flow



iHCU 4-Station Hi Flow

iTCU – 6-Channel Thruster Control Unit

iTCU – 7-Channel Thruster Control Unit

iTCU – 8-Channel Thruster Control Unit

iHCU 10-Station

iHCU 12-Station

HYDRAULIC VALVE PACKS

Curvetech® Hydraulic Control Units (HCU's) are used for control of the majority of vehicle hydraulic functions where the extremely high accuracy of a servo valve isn't required. System control and accuracy is still very good and typical applications include manipulator arm control, tooling, hydraulic cylinder actuation and hydraulic camera pan & tilt units.

STANDARD HYDRAULIC CONTROL UNIT SPECIFICATIONS

PART NUMBER	VALVE SETUP[2,3]	ADJUSTABLE FLOW CONTROLS	FLOW		ELECTRICAL	
			LPM	GPM	CONNECTORS[1]	STD. COMMS.
AG1372	12 x NG3 See options below for population	12 x Optional Externally adjustable	15	4	Input – Burton I/O – 4x Burton	RS485
AG4676	10 x NG3 See options below for population	10 x Optional Externally adjustable	10	2.20	Input – Burton I/O – 4x Burton	RS485
AD7011	6 x NG3 See options below for population	6 x Optional Externally adjustable	10	2.20	Input – Burton I/O – 4x Burton	RS485
AF8838	4	NG3 2x NG6 / 2x 100 LPM cartridge	35 / 95	7.70 / 20.90	Burton	RS485
AG4713	2	2x 100 LPM cartridge	95	20.90	Burton	RS485

[1] Standard connector types shown – alternative connectors can be accommodated on request (e.g. Impulse, Seacon).
[2] Number of positions for proportional or on/off valves.
[3] Combinations of valve sizes and configurations can be provided on request.
[4] Images shown are not to scale and are for information purposes only. Please refer to drawing for dimensions and further detailed information. For higher flow rate units or custom functions we can advise further. Please contact us.

ADDITIONAL VALVE CONFIGURATIONS FOR HCU STACKS

Combinations of these stacks can be used to build the complete valve pack, depending on the required functionality. Some valve-packs also contain additional functionality. Refer to the valve pack hydraulic schematic for additional functions. If in doubt consult Curvetech® technical team for further advice.

PART NUMBER	DESCRIPTION	SCHEMATIC	NOTES
AF1068	Assembly mini 3 DIR+PO+Flow / DOF	See drawing CD0977-VER-001	
AF1069	Assembly mini 3 DIR+Flow / DF	See drawing CD0977-VER-001	
AF1072	Assembly mini 3 Prop / P	See drawing CD0977-VER-001	
AF2307	Assembly Prop Pressure Relief Valve	See drawing CD0977-VER-001	Typically used to control pump load.

Alternative valves and combinations are available upon special request

DISTRIBUTED SUBSEA CONTROL (DVECS II)

The SMD Curvetech™ Distributed Vehicle Control System (DVECS II) is a powerful reliable control package designed for controlling remote robotic subsea systems. DVECS II excels when controlling hydraulic devices, instrumentation or cameras such as those found on complex work class ROVs, ploughs and trenchers. DVECS II boasts a full suite of user programmable functions in addition to real-time diagnostic monitoring. The package can be engineered to suit any customer application, including newly built or upgraded ROV or similar subsea systems.

TOPSIDE COMMUNICATIONS

- → DVECS control SCADA software/electronics
- → DVECS II Control Electronics
- → DVECS II GUI
- → Pilot/Co-pilot display PCs
- → TFT flat screen video wall for cameras and control display touch screens
- → Customised main control desks available with joysticks and slide switches
- → High and Low Voltage Power Distribution Units

SUBSEA

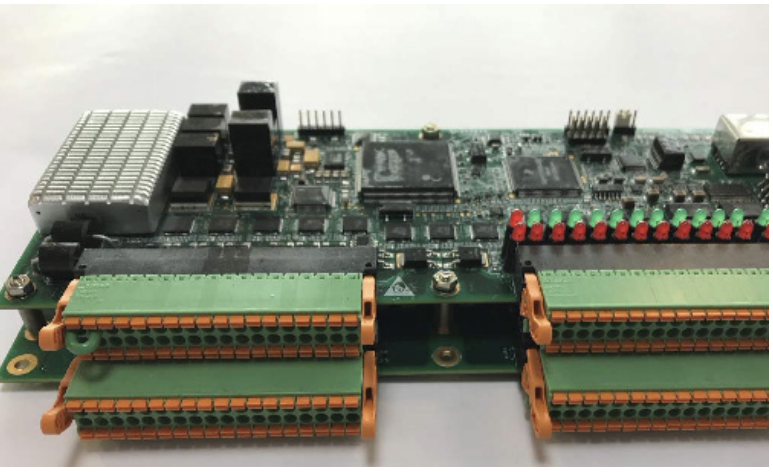
- → DVECS II ultra-compact main control pod
- → DVECS II 6 or 12- channel lighting control unit
- → Interface to Curvetech™ Thruster control and hydraulic control units

MULTI-FUNCTION VALVE PACK ENHANCED CONTROL BOARD

The SMD Multi-Valve Pack Enhanced (MVPE) Control Board is a highly capable and versatile control unit designed to act as a distributed I/O hub on subsea systems. It's capable of driving upto 15 A/B hydraulic proportional or solenoid valves (ie. 30 channels) with adjustable dither to provide extremely fine hydraulic control of equipment.

The MVPE board is also a capable data collection system with 22 inputs designed to monitor sensors at the ROV's periphery such as compensators, reservoirs, proximity sensors, speed sensors and more. This dual functionality is beneficial in reducing harness congestion at the POD and facilitates in appearance and maintainability of the vehicle.

Designed to be operator and maintenance friendly, the board has visible indicators for visual diagnosis of faults, normally these are located to be visible to the operator through a clear window. When commissioning the vehicle it's also simple to isolate the valve driver outputs whilst still maintaining board control and communication providing a safe solution for personnel.



FEATURES

- → 30 Valve Drive Channels to control upto 15 independent hydraulic valve stacks.
- → 15 I/O channels for additional sensor inputs. Individually configurable 4-20mA or 0-10V inputs.
- → Temperature inputs – PT100 (2 off)
- → Encoder inputs (2 off)
- → RS485 or RS232 multi-drop control via Modbus RTU.
- → Separate control and field power supplies for safe startup.
- → Onboard DC-DC regeneration for smooth and steady Supply.
- → Vibration resistant, Pheonix Connectors for simple board installation.
- → On and off board environmental monitoring.

MULTI-FUNCTION VALVE PACK ENHANCED CONTROL BOARD

GENERAL

Depth rating	6000 MSW
Compatibility	MINERAL OIL
Operating Temperature	-10°C to +60°C
Storage Temperature	-30°C to +60°C
Size (LxWxH) w/out cover	220 x 100 x 38mm
Size (LxWxH) with cover	252 x 110 x 40mm

STANDARD USES

→ Main control and driver board in iHCU's for actuation of manipulators, hydraulic cylinders, torque tools and other ROV tooling

→ I/O for monitoring reservoir and compensator levels, wheel speeds and length out

VARIANTS & SMD PART NUMBERS

→ AJ7545 – Bare board

→ AJ9823 – Board + cover (recommended)

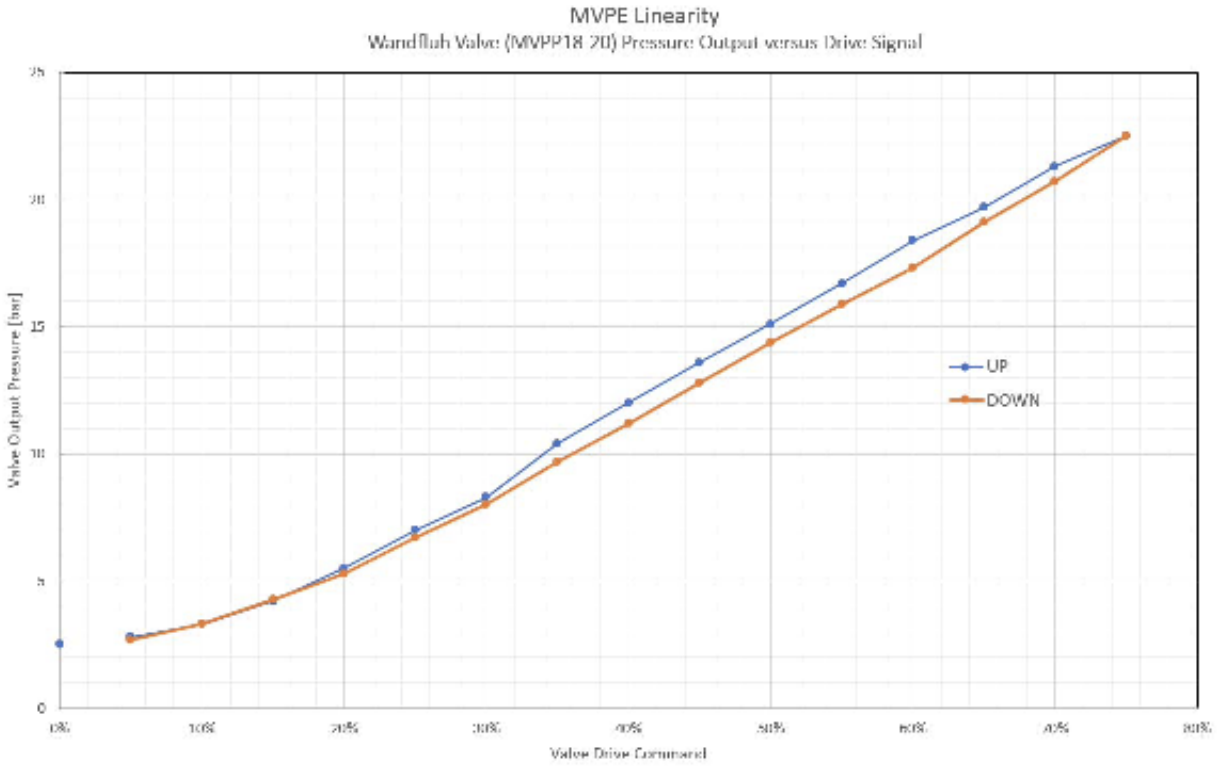
→

ELECTRICAL OUTPUTS

Valve Driver Outputs	15 A or B OUTPUTS
Electrical	24VDC upto 22 AMPS/CHANNEL
Output dither	CONFIGURABLE
Resolution	15 BIT

ELECTRICAL INTERFACES

Electrical Power (Control)	24VDC; 1AMP
Electrical Power (Field)	24VDC
Electrical Interface	RS232 or RS485
Electrical Comms	Modbus RTU
General Input channels (4-20Ma or 0-10V)	15 OFF
Sensor Supply capability	upto 160 MILLIAMP/CH
Input Configurability	0-10V 0-20mA DIGITAL PULL-UP (8-24V)
Input Resolution	15 BIT + NOISE FILTER
Quadrature Encoder Inputs (upto 4kHz)	2 OFF
External Temperature Inputs	2 OFF; 3 WIRE



MULTI-FUNCTION VALVE PACK ENHANCED CONTROL BOARD

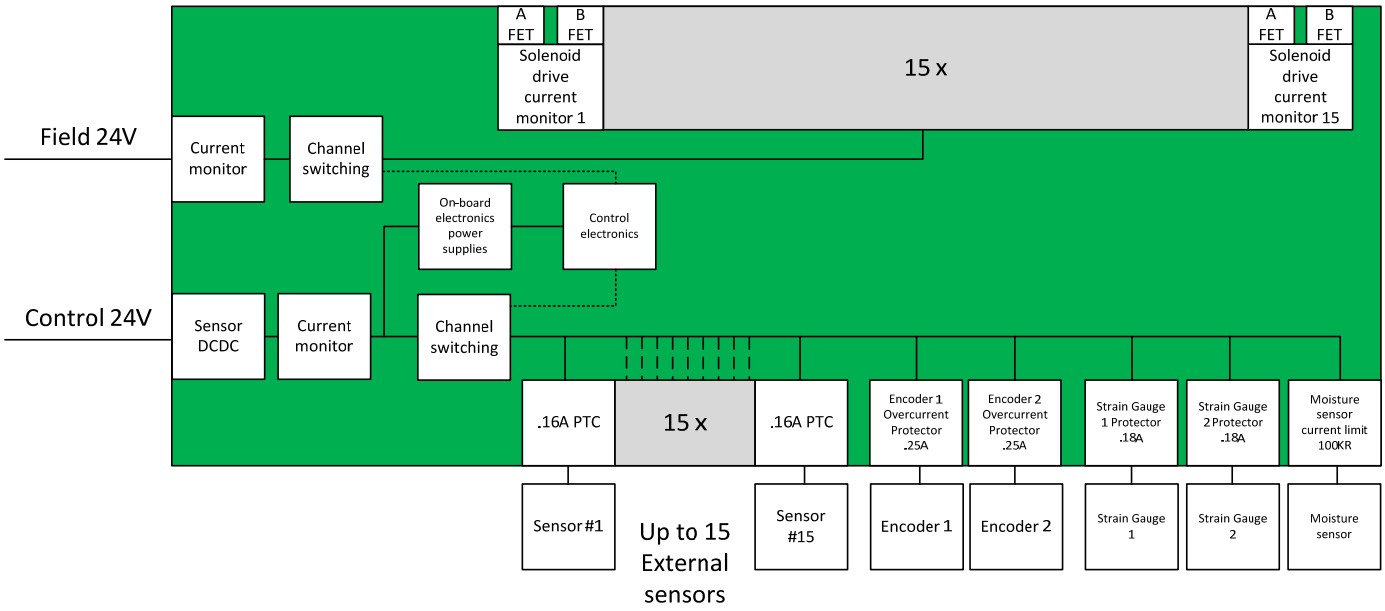


Figure 1 – Board I/O and Electrical Layout

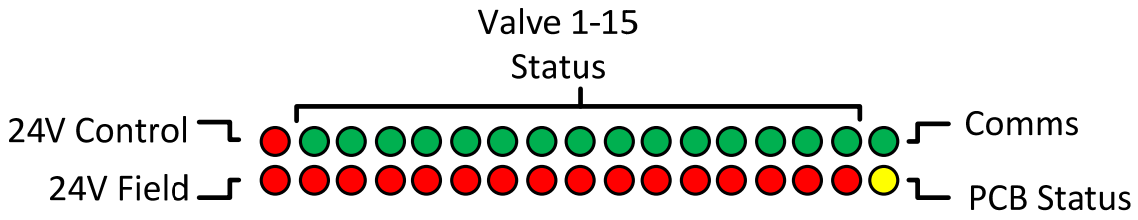


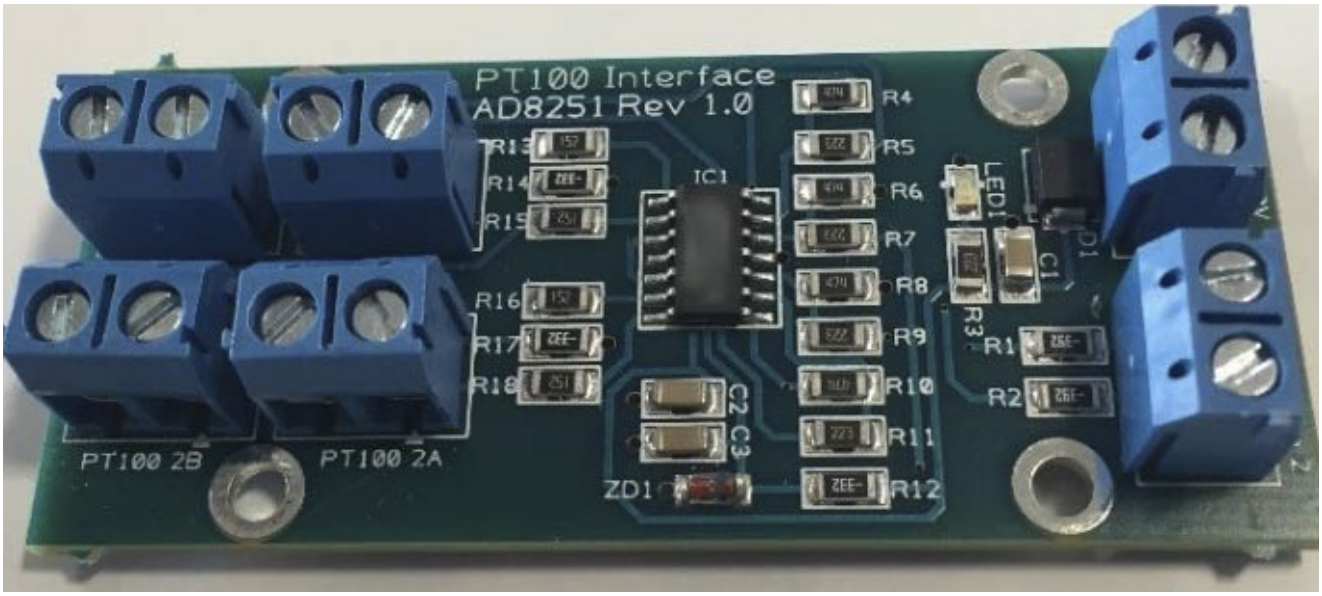
Figure 2 – On-board status indication

PT100 CONDITIONING CARD

The SMD Curvetech® PT100 Conditioning card is designed for temperature monitoring applications. The PT100 card can be used for standalone 0°c-100°c temperature sensor monitoring applications or as part of a control system diagnostic and monitoring. The PT100 card is capable of interfacing to 2x PT100 sensors and can handle 2, 3 or 4 wire sensors. Temperature calibration is via software control. Can be directly interfaced with SMD's range of subsea control units as part of an integrated control system.

FEATURES

- → Converts PT100 temperature
- → sensor resistance to 0-10V
- → analogue signal.
- → 2x PT100 Inputs (2 / 3 / 4-wire)
- → 0°c-100°c range
- → 24VDC power input with
- → reverse polarity protection

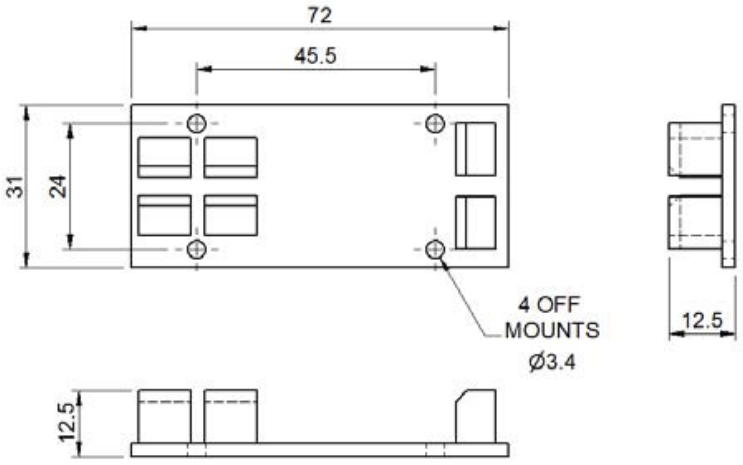


PT100 CONDITIONING CARD

STANDARD PT100 CARD SPECIFICATIONS

PART NUMBER	DEPTH RATING	NO. OF INPUTS[1]	INPUT TYPE	NO. OF OUTPUTS[2]	OUTPUT TYPE	CONNECTORS
AD8251	3000m	2	PT100	2	Analogue 0-10VDC	Screw Terminal

[1] Analogue Inputs can be configured as either 2, 3, or 4-wire type.
[2] A or B temperature output channels. Software calibration required to convert 0-10VDC signal to temperature value.
[3] 24Volt DC power supply required.
[4] Specifications are subject to change without prior notice. We accept no liability for any inaccuracy or printing errors.



Mounting details. All dimensions in mm.

SUBSEA ROTARY ENCODER

The SMD Curvetech® Subsea Rotary Encoder (SRE) is an incremental shaft encoder assembly designed for subsea encoder applications such as for subsea Tether Management Systems (TMS) and winches. The SRE uses a stainless steel marine grade housing and is supplied with mounting bracket for ease of installation. The SRE can also be supplied with a range of subsea connector options.

FEATURES

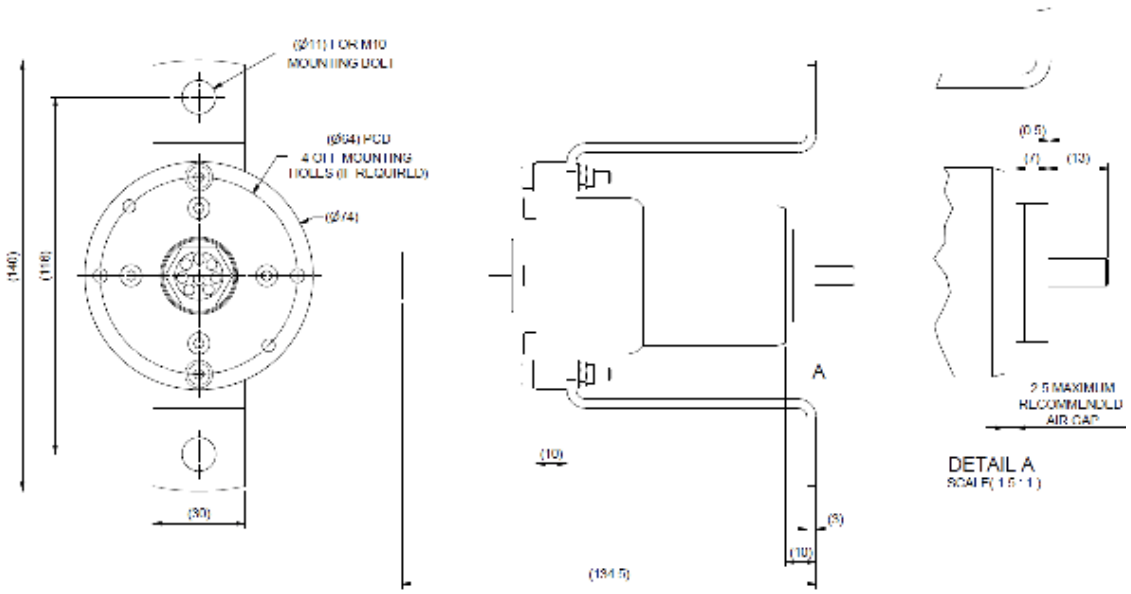
- → 500 pulses per revolution
- → 12,000 RPM maximum speed
- → 50kHz maximum frequency
- → 3000m depth rated as standard, other depth ratings are available on request.

SUBSEA
ROTARY ENCODER

STANDARD SUBSEA ROTARY ENCODER SPECIFICATIONS

PART NUMBER	RESOLUTION[1]	MAX. SPEED	MAX. FREQUENCY	TEMPERATURE RANGE	MOUNTING BRACKET	POWER SUPPLY[2]	CONNECTOR
AJ9493	500PPR	12,000 RPM	50 kHz	-25oC - +85oC	2x M10 on 116mm pitch	24VDC, <60mA	Impulse

[1] A and B quadrature output signals. Output load must be >800Ω. Short circuit protection must be included on the host controller otherwise a short circuit will damage the encoder.
[2] Unit draws no more than 60mA current with 24VDC power supply.
[3] Specifications are subject to change without prior notice. We accept no liability for any inaccuracy or printing errors.



Mounting details. All dimensions in mm.

SUBSEA SENSOR RANGE

SMD Curvetech® have a range of proprietary sensors developed over the years for use on subsea equipment. These sensors are designed to operate subsea under hydrostatic pressure, providing the equipment operator with reliable feedback on machine performance criteria allowing operators to make informed decisions during difficult operations

FEATURES

- → Sensors designed for subsea use -3000m depth rating as standard
- → Rugged design for use on all vehicle types
- → Other sensors and variations available on request

SUBSEA
SENSOR RANGE

SMD SUBSEA SENSOR TABLE & BASIC SPECIFICATIONS

PART NUMBER	FUNCTION	OPERATIONAL USES	SPECIFICATION NOTES
AF0140	Subsea Proximity Switch	Subsea Latch Position Indication. 1.5mm on ferrous targets	24VDC, 200mA; Impulse connector; M12x1 mounting thread
AK0521	Subsea speed and direction sensor	For use in oil filled enclosures	6000m rated
AK6894	Subsea speed sensor	Motor and pump speeds such as for tracks, thrusters or water pumps	Fits an 18mm DSA housing (as used on Rexroth motors)
AK6895	Subsea speed sensor	As noted for AK6894	Fits a 32mm DSA housing (as used on Rexroth motors)
AL0692	Subsea speed sensor	As noted for AK6894	Fits a 32mm HDD housing (as used on Rexroth motors)
AL0693	Subsea speed sensor	As noted for AK6894	Fits a 16mm HDD housing (as used on Rexroth motors)
AB4611	Oil Temperature and Water Sensor	Designed for external penetration into Reservoirs, Compensators and other hydraulic galleries	Impulse MCBH-4-MP subsea connector
AK1707	Oil Temperature Sensor	Designed to sit in an oil well and measure oil temperature via a PT100	Internal use in valve-packs
AC6644	Filter blockage switch	For use with MP Filtri housings	2 bar differential switching point
AC6645	Filter blockage switch	For use with MP Filtri housings	5 bar differential switching point

For detailed specifications on the above sensors please contact us.

VACUUM PORT

The SMD Curvetech® Vacuum Port assembly provides the facility to test seal integrity of subsea enclosures prior to launch. Ensuring subsea pressure vessel o-ring seals are correctly seated prior to diving is crucial in maintaining subsea vehicle up-time. The inclusion of a vacuum port on any POD allows field operators to test seal integrity prior to launch of the vehicle preventing costly mistakes and potential damage to internal equipment. The SMD Curvetech® vacuum port is designed for single man operation allowing a vacuum to easily formed inside the pressure vessel and maintained on closure of the valve.

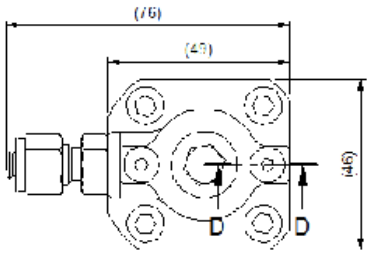
Optional kits can be supplied to allow a vacuum to be pulled using a standard air supply or alternatively from a 110V electric supply.

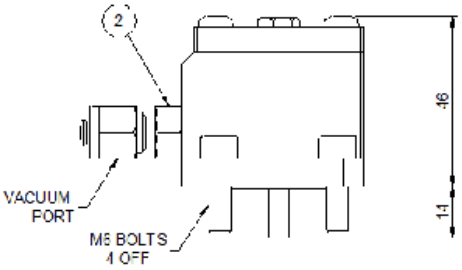
FEATURES

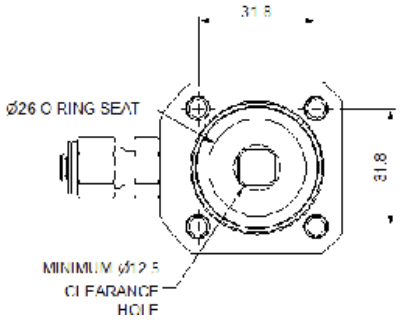
- → Compact design package
- → 3000m rated
- → All stainless steel robust design
- → Simple vacuum closure for deck operations
- → Optional pneumatic (or electric) vacuum pulling kits available

VACUUM PORT

ALL DIMENSIONS IN MM







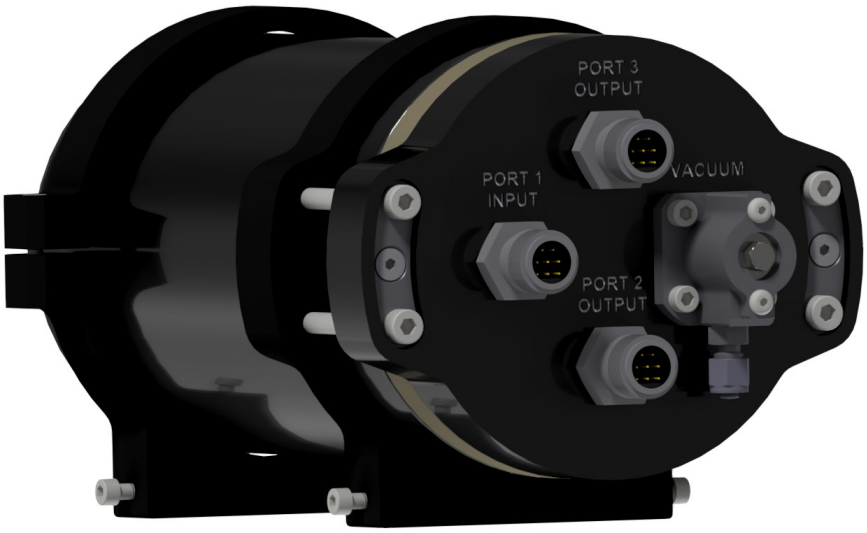
SUBSEA POWER SUPPLY UNIT

The SMD Curvetech® Subsea Power Supply Unit (SPSU) provides 15VDC and 24VDC power supply outputs from an input 110VAC supply. Typically used as part of a subsea instrumentation or control system the SPSU provides additional power supplies for use with 3rd party equipment. Utilising state-of-the-art power supply modules the standard configuration unit includes 1x 15VDC and 1x 24VDC power supplies (e.g. for use with responders/transponders, sensors and other instrumentation) but voltage ranges between 1.5VDC to 58VDC up to 1200W are possible – contact SMD for special requirements.

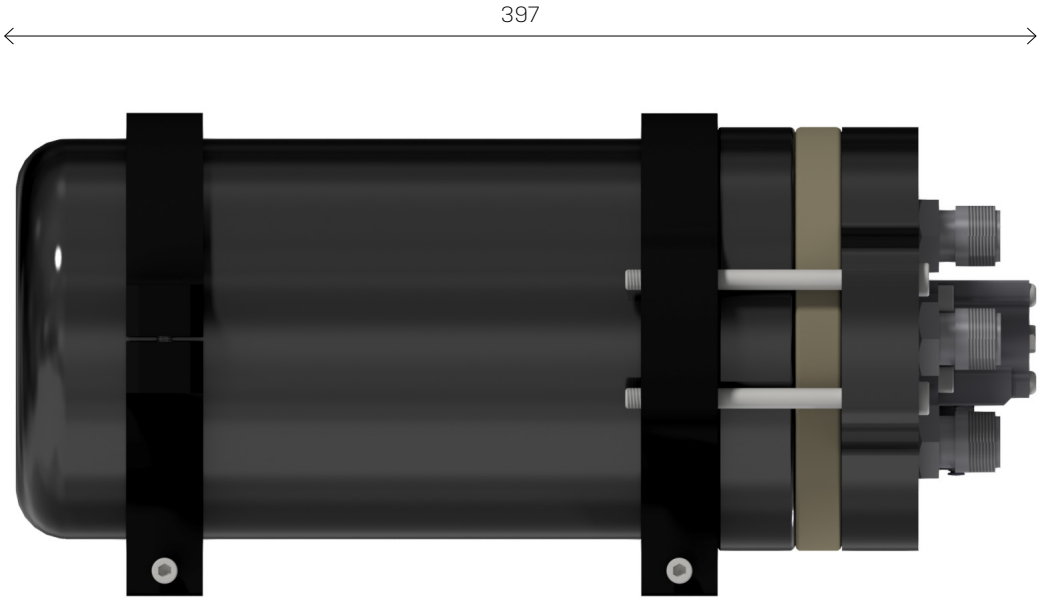
The SPSU includes 2x output ports for ease of wiring and each output connector includes a signal connection and return line for use with 3rd party equipment signals (e.g. for use with Kongsberg or Sonardyne responders/transponders). Housed in a 4000m rated pressure vessel the unit includes an SMD vacuum port and Burton connectors as standard. Other connector types are available on request.

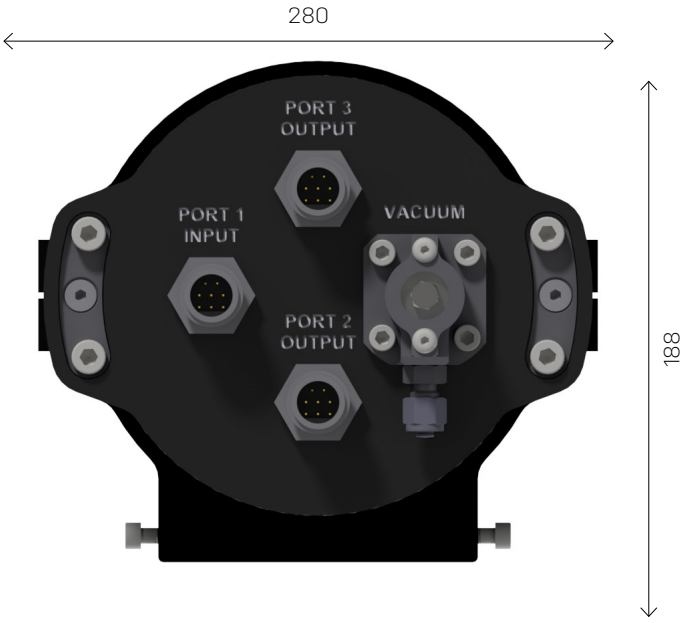
FEATURES

- → Compact robust design package
- → 4000m rated
- → Aluminium housing
- → Simple vacuum closure for deck operations
- → 110VAC Input Supply
- → Standard Outputs 15VDC @30 Amps & 24VDC @10 Amps – other voltages are available on request
- → 2x Output Port Connections



SUBSEA
POWER SUPPLY UNIT





ROV
DECK PACK

SMD bring years of knowledge and experience to the design and manufacture of Work Class ROV systems to offer a range of standalone maintenance Deck Pack hydraulic power units specifically designed for use offshore with Work Class ROV systems and other hydraulic power applications.

Standard SMD ROV Deck Pack HPU's are manufactured to interface with SMD Work Class ROV's systems to provide support for maintenance and associated hydraulic tooling requirements. All SMD Deck Pack HPU's are designed for long service life and are available with DNV or Lloyds Design Approval.

FEATURES

- → 15kW model available as standard, other models available on request
- → Safe Area or optional Zone II
- → Light weight offshore certified lifting frame design
- → 200L Tank Capacity
- → Relief Valve
- → Pressure gauges
- → Bunded (drip tray)
- → Marine grade coating
- → Optional oil / water separator
- → Optional sea water cooling

ROV
DECK PACK

GENERAL

Certification[1]	
Design	DNV & Lloyds
Environment	Safe Area or Zone II
Weight	
Standard (exc. oil)	1030kg
Operating Temperature	
Standard	-10°C to +45°C
Deck Mounting	
No. Mount Points (2 optional orientations)	4
Mount Configuration	Bolted plate, welded to deck
Dimensions[2]	
Length	1515mm
Width	1115mm
Height	1360mm
Padeyes	
Main Lift	4-point to DNV 2.7-3 with sling set

ELECTRICAL INTERFACES

Power[3]	
Total Power Output	Standard 15kW
Motors	440-480VAC or 690VAC 50Hz or 60Hz, 3-Phase
Instrumentation	
Emergency Stop /Reset Controls	Yes
Motor Start/Stop	Yes
High Oil Temperature Indicator and shutdown	Yes
Motor Running Indicator	Yes
System Pressure Gauge	Yes
Motor Running Indicator	Yes
Oil Level sight Gauge	Yes
Hours Run Meter	Yes
Hydraulic	
Max Output Pressure	210 bar (3045 PSI)
Max Output Flow	29LPM (50Hz) 35LPM (60Hz)
Reservoir Capacity	200L
Fittings	All Stainless Steal
Connection	Quick release couplings
Pressure Filter	6 micron
Return Filter	6 micron
Seawater Cooling	Optional
Oil / Water Separator	Optional

[1] Please specify certification requirements with order. IEC Ex compliant models are also available on request.
[2] Dimensions exclude deck mounting brackets. Standard dimensions shown, actual dimensions dependent on final options selected.
[3] Higher power models are available on request.

AX-VX GASKET REMOVAL TOOLS

SMD offer a range of Curvetech® AX-VX Gasket (Ring) removal tools designed for gasket insertion and removal. Two models are available to suit industry standard gasket sizes. Subject to volume custom designs can be provided on request to suit client specific requirements.

FEATURES

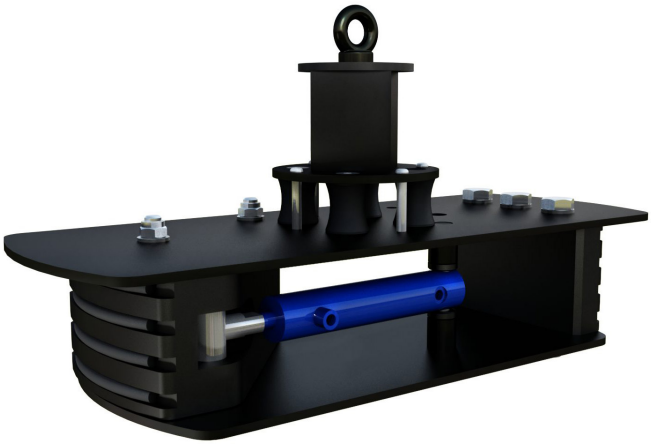
- → Rugged construction
- → Reliable handling and operation
- → Fail-safe mechanism
- → Compliant mount arrangement

AX-VX
GASKET REMOVAL
TOOLS

STANDARD PART SPECIFICATIONS

PART NUMBER[1]	RANGE MM (INCHES)		OPERATING / MAXIMUM WORKING PRESSURE		WEIGHT KG (LBS)		CONNECTOR
	MIN	MAX	BAR	PSI	IN AIR	IN WATER	
AF7842	476.25 (18 ¾")	539.75 (21 ¼")	200 / 250	2900 / 3625	12 (26.5)	7 (15.4)	570 x 220 x 315 (22.4" x 8.66" x 12.4")
AF7843	346.08 (13 5/8")	425.45 (16 ¾")	200 / 250	2900 / 3625	14 (30.9)	8 (17.7)	480 x 310 x 320 (18.9" x 12.2" x 12.6")

[1] Standard models shown – customised versions can be provided on request.
Please contact us to discuss your specific requirements.



DV_7000

DV_7001

WROV 28KW DIRTY WORK PACK

The Curvetech® 28kW Dirty Work Pack (DWP) is an Isolated Hydraulic Power Unit (IHPU) that can be used to reduce the risk of oil contamination within the main ROV hydraulic system. The DWP unit provides an isolated hydraulic supply for use with hydraulic tools and equipment where contaminants such as dirt or water may be a problem. The unit allows the use of ROV tooling such as grinders, hot stabs, cutters and skids to be operated on a secondary (dirty) hydraulic circuit, where if contamination arises it becomes a much simpler process to clean the hydraulic system. Additionally dedicated high and low pressure filters are included in the DWP unit to remove trace contaminants before they impact on performance. Alternative sizes and power ratings of DWP's are also available upon request.

FEATURES

- → Compact, low weight
- → Quick connect hydraulic fittings
- → Service friendly
- → Pressure compensated flow control
- → High efficiency conversion

WROV
28KW DIRTY WORK PACK

HYDRAULIC SPECIFICATIONS

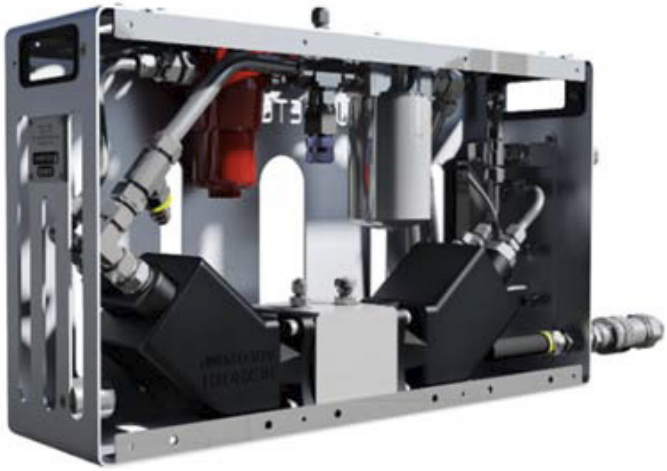
PART NUMBER	MAX OUTPUT PRESSURE	MAXIMUM INPUT FLOW		MAXIMUM OUTPUT F LOW		OPERATING TEMPERATURE RANGE	CONVERSION EFFICIENCY	PUMP	HYDRAULIC MOTOR
	BAR	LPM	GPM	LPM	GPM				
AJ4889	210	88	19.35	81	17.8	-10°c to +45°c	84%	Rexroth A17FO-32CC	Rexroth A17FO-32CC

MECHANICAL SPECIFICATIONS

PART NUMBER	DIMENSIONS LENGTH		WIDTH		HEIGHT		WEIGHT IN AIR		IN WATER		MOUNTING ARRANGEMENT
	MM	IN	MM	IN	MM	IN	KG	LBS	KG	LBS	
AJ9493	700	27.56	181	7.13	450	17.72	46	101.4	35	77.2	12x M10 threaded holes

ACCESSORIES

Description	Notes
iHCU Valve Pack	Please refer to Hydraulic valve pack datasheet for further details
Reservoirs / Compensators	Please refer to SMD compensators datasheet for further details
Mounting Brackets	Please contact SMD to discuss your specific requirements
Motor / Pump Seal Kit	SMD Part No. AC8176
High Pressure Filter Element	SMD Part No. AJ4984
Return Filter Element	SMD Part No. AJ4991



WROV JETTING SKID

The SMD Curvetech® WROV Jetting Skid is a highly cost effective solution for trenching applications. Designed to provide additional jetting capability to Work Class ROVs the unit is compatible with SMD's range of WROVs but can also be offered for use with other manufacturers ROVs.

FEATURES

- → Water Jetting System
- → Skids
- → 1.5m Jetting Depth
- → 1m Twin Jet Legs
- → 75kW Water Pump
- → Manual variable width adjust
- → Custom designs can be supplied
- → Integral Motor compensator and
- → Circuit Reservoir
- → Hydraulic retract and deploy
- → 6-Station Hydraulic Control Unit
- → Neutrally buoyant
- → High strength construction

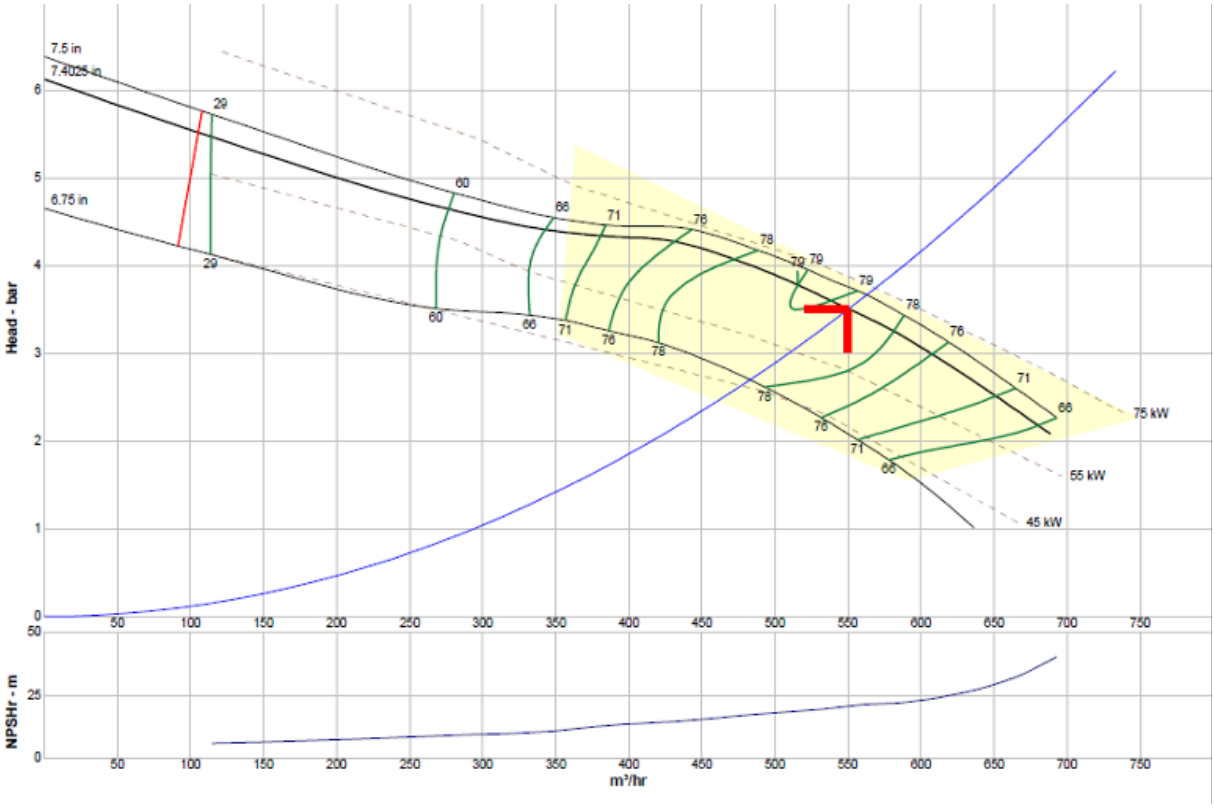
WROV JETTING SKID

GENERAL SPECIFICATIONS

PART NUMBER	DEPTH RATING[1]	MAXIMUM JETTING DEPTH[2]	WEIGHT IN AIR	WEIGHT IN SEA	TRENCHING CABLE DIAMETER
AD5422	1000m	1500mm	2000kg	Neutral	100 – 135mm

ELECTRICAL SPECIFICATIONS

PART NUMBER	POWER		POLES	FREQUENCY HZ	SPEED RPM	VOLTAGE[3]	CONNECTOR
	SHP	KW					
AD5422	83 - 100	61 - 73	2	50 / 60	2500 / 3400	2500 / 3000	Burton 55-Series

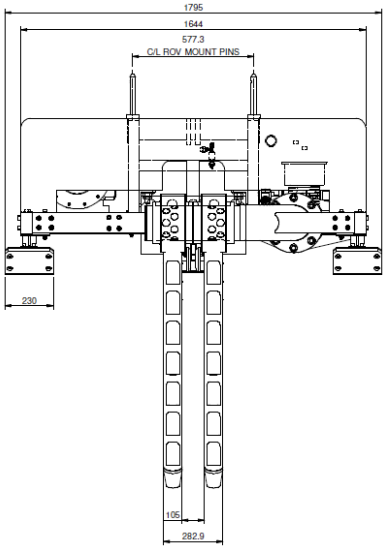


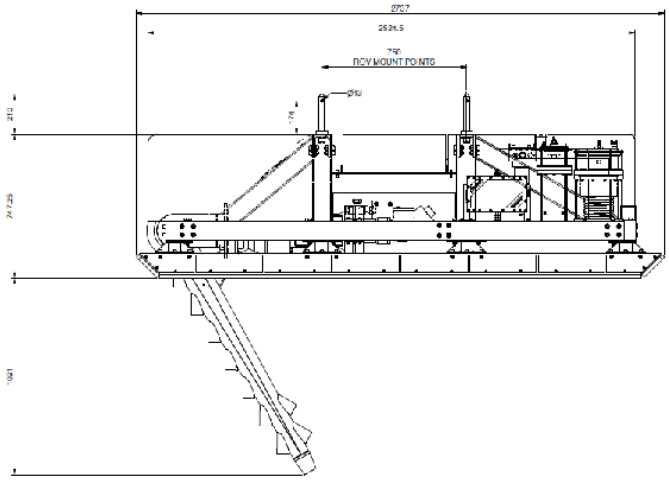
WROV JETTING SKID

WATER PUMP SPECIFICATIONS

PART NUMBER	TYPE	CC	OPTIMAL PRESSURE (BAR)	MAX FLOW (M^3/HR)	NOTES
AD5422	KFA Series 6[4]	45	3.5	520	See graph for further performance data

[1] Standard depth rating, alternative depth ratings can be supplied – contact SMD Sales to discuss your requirement.
[2] Jetting depth quoted is in course to medium sand seabed.
[3] Nominal voltage
[4] Bosch Rexroth



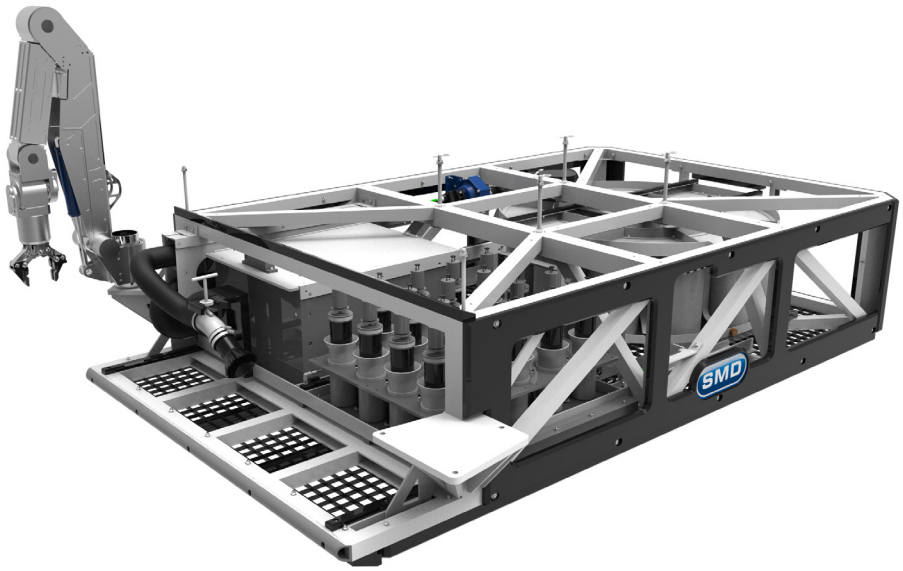


WROV SCIENTIFIC SKID

The SMD Curvetech® WROV Scientific Skid is a highly cost effective solution for adding scientific monitoring and sampling capability to a Work Class ROV. Designed to provide additional scientific sample collection and tooling capability to Work Class ROVs the unit is designed for use with SMD's range of WROVs but can also be provided for use with other WROV manufacturers.

FEATURES

- → Water Jetting System
- → Skids
- → 1.5m Jetting Depth
- → 1m Twin Jet Legs
- → 75kW Water Pump
- → Manual variable width adjust
- → Custom designs can be supplied
- → Integral Motor compensator and
- → Circuit Reservoir
- → Hydraulic retract and deploy
- → 6-Station Hydraulic Control Unit
- → Neutrally buoyant
- → High strength construction



WROV SCIENTIFIC SKID

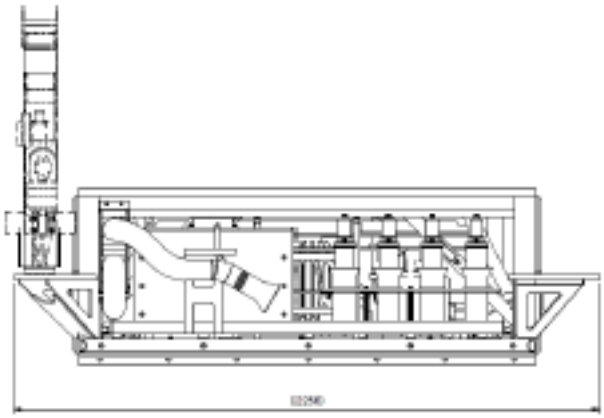
GENERAL SPECIFICATIONS

PART NUMBER	DEPTH RATING[1]	BENTHIC SAMPLER[2]	WEIGHT IN AIR	WEIGHT IN SEA	SLIDING TOOL TRAY	ALTIMETER	NOTES
AH2661	4000m	12	~550kg	~206kg	Yes	Optional	See graph for further performance data

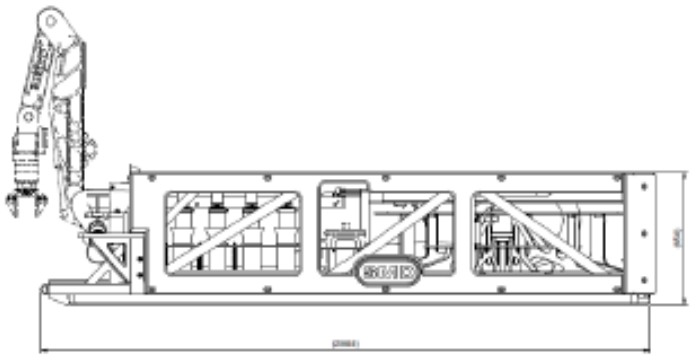
HYDRAULIC SPECIFICATIONS

PART NUMBER	SAMPLE PUMP TYPE	MAX PRESSURE (PSI)	MAX FLOW (LPM)	NOTES
AJ9493	9303P4	100	6.8	–

[1] Standard depth rating, alternative depth ratings can be supplied – contact SMD Sales to discuss your requirement.
[2] 12-Sample carousel assembly with suction sampler – please contact SMD if alternative sampling system is required.
[3] Nominal voltage
[4] Hypro centrifugal pump
[5] Can be run from ROV 12-station HCU or optional separate HCU
[6] Contact us for detailed electrical interface requirements.



Front view



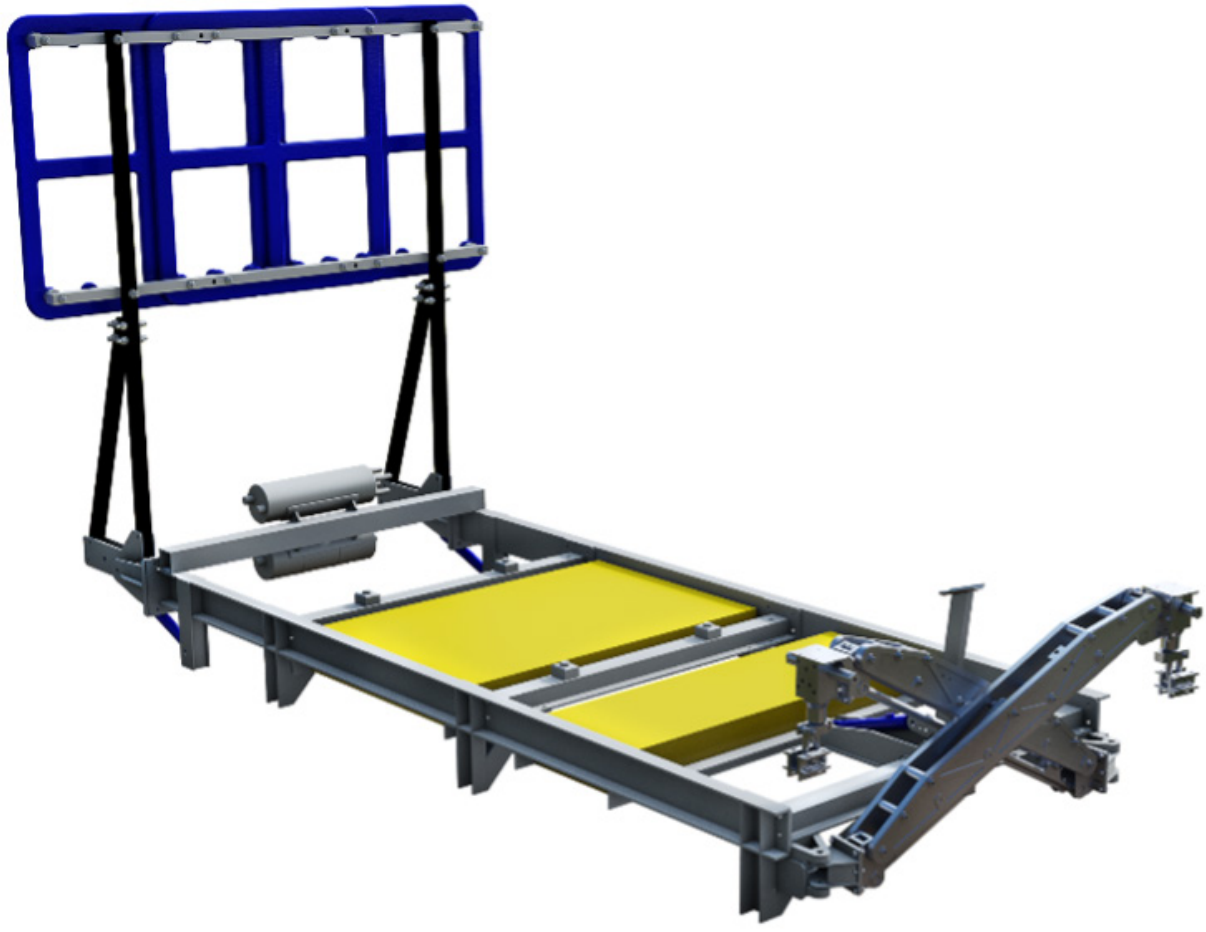
Side view

WROV PIPELINE SURVEY SKID

The SMD Curvetech® WROV Pipeline Survey Skid is a highly cost effective solution for adding pipeline surveying capability to a Work Class ROV. The design incorporates wheels and a TSS440 pipe tracking system to provide an integrated pipe survey system. The unit is designed for use with SMD's range of WROVs but can also be provided for use with other WROV manufacturers.

FEATURES

- → Wheeled survey skid
- → Integrated TSS440 Pipe Survey System
- → Camera boom arms with Pan and Tilts
- → Cylinder operated deployment frame
- → Neutral buoyant
- → Rugged chassis design
- → Low friction wheels
- → Custom design can be provided



WROV
PIPELINE SURVEY
SKID

GENERAL SPECIFICATIONS

PART NUMBER	DEPTH RATING	PIPE SURVEY SYSTEM	WEIGHT IN AIR	WEIGHT IN SEA	CONTACT PROBE
AA0001	2000m[1]	TSS440[2]	~350kg	Neutral	Optional

[1] Standard depth rating, alternative depth ratings can be supplied.
[2] Standard Teledyne TSS440 system.
Please contact SMD Sales to discuss your specific requirements.

CONTACT US
SMD
CURVETECH@SMD.CO.UK
+44 (0) 191 234 2222
SMD.CO.UK

ENGINEERING
EXCELLENCE
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