



UMBILICAL

CUSTOM MADE UMBILICALS

SUPPLY CHAIN EXCELLENCE

FAST TRACK AND COST EFFECTIVE DELIVERIES FROM DESIGN TO SHIPMENT



Umbilical

Flux established an umbilical production in 2014 to deliver customized design and ensure short lead time. A particular area in which we specialize is the short-length umbilical market. We provide a custom-engineered service encompassing design, engineering, manufacturing, testing and installation together with back-up support and after-sales service that the medium/large manufacturers can not match.

We offer fast track turnaround and delivery of finished product due to our extensive stockholding of specialist hydraulic control line hoses, combined with our in-house capability to manufacture bespoke or specialist end connections in both standard and exotic materials such as Monel, Inconel, 6MO, Super Duplex etc. Flux has close relationships with key suppliers to secure short delivery time and access to a wide range of hoses and fittings. Our Extrusion and Coatings service encompasses the encapsulation of both single hose and hose bundles with a Polymer or Elastomer cover that significantly increases hose service life whilst assuring operational reliability.



A TYPICAL PRODUCTION PROCESS

Bundling

All lines are bundled in the production assembly line.

Extrusion & Braiding

The bundle is typically extruded with a cover of flameretardant polyurethane or other materials specified by our customers. Aramid wire and steel wire for tension relief are available options.

Termination

Upon completion of the extrusion process our certified hose fitters terminate the hoses with the specified connectors / fittings.

Testing & Flushing

All lines undergo a hydrostatic pressure test in accordance to applicable standards and flushing according to customer specification. When requested we invite Third Party to witness the testing.

Tag / Marking

The umbilical will be tagged and marked in accordance with Fluid Control standard procedure. The tags will include customer reference or other requested information. Customer specific marking is possible.

Final Inspection

Final inspection is an important step of our quality process and performed prior packing and shipment sent to our customer.

FLUX'S UMBILICALS COVER A RANGE OF NEEDS AND APPLICATIONS:

- Tension ring umbilicals
- Service loop bundles
- Topside Control Umbilical
- Topside wellhead control
- BOP Control Umbilicals
- Hydraulic Flying Leads
- Deck Jumper for intervention workover control system
- Hydraulic service lines
- Lubrication and grease umbilical
- In field wellhead umbilicals
- Service lines
- Chemical injection lines
- Wireline umbilicals
- Gas umbilicals
- Subsea jumpers



CAPABILITY AND CUSTOMIZED FEATURES

- Produced in-house; from design to delivery
- Design to customer requirements / specification.
- Continuous lengths in excess of 600mtr
- Fully ISO 13628-5 / API 17E compliant thermoplastic hoses
 - Aramid fibre reinforced hoses
 - Steel wire reinforced hoses
- High Collapse Resistance Hose
- Wide range of HP, HT and chemical compatibility
Working pressures in excess of 2000 bar / 29000 PSI
- Choice of wire and synthetic strength members and ropes
- Choice of cover options such as material, sheath colors, print and tagging
- Continuous sheaths of Thermoplastic Polyurethane that provides
 - Excellent wear resistance.
 - Total assembly encapsulation preventing sea water ingress
 - Corrosion elimination
 - Resistance against microbial attack
 - Withstands repeated flexing
 - Flame-proof - halogen free.
 - Conductive or non-conductive cover
- Polyethylene overbraids cover or plastic spiral guards.
- Bend restrictors / stiffeners
- Terminations can be supplied with:
 - JIC, BSP, NPT, and more
 - AISI 316 / 316Ti, Duplex, 6MO, and more
 - armour bodies, pull in heads, hang-off collars, MQC, stab-plates, quick-connects

Documentation package

Our standard documentation package consists of the following documents:

- Hydrostatic Pressure Test Reports
- Flushing Certificate
- Datasheets
- Drawings

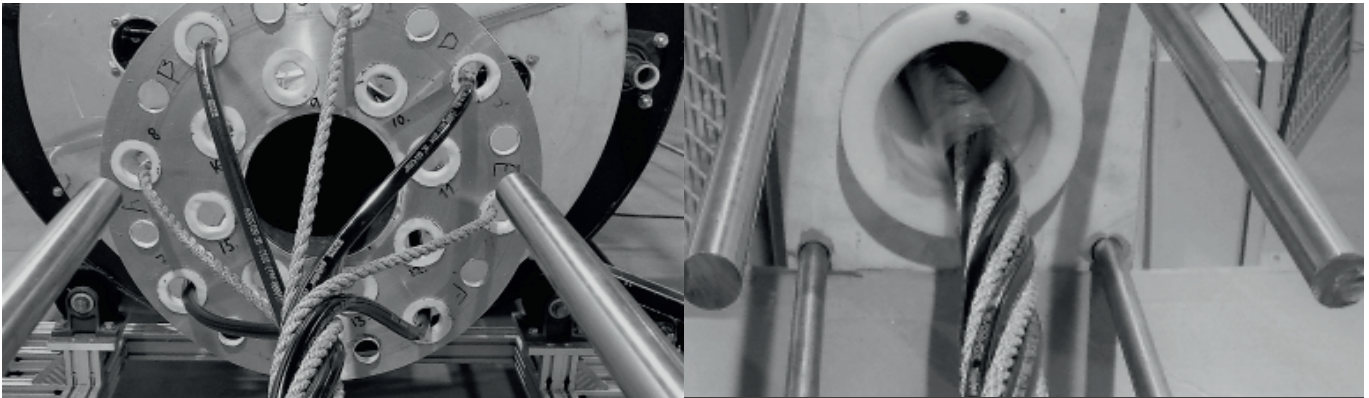
Other documents are available on request.

Service and repair of umbilical

- Re-termination of hose fittings
- Testing / Flushing
- Repair of outer sheet
- Re-application Armour Body
- Moulded bend stiffener

Benefits of using Flux

- Short lead times
- Customized design
- Certified hose fitters
- Extensive knowledge and competence within the field of flexible hose solutions
- Wide range of hoses and couplings supplied from world class manufacturers in stock



Flux has its own production line and control each step of the process

UMBILICAL DATA SHEET Umbilical hose assembly 4 lines

TAD	ISS/PM
S1-0201	A01
S1-0202	A102
S1-0203	A03
S1-0204	A04
S1-0205	A05
S1-0206	A06
S1-0207	A07
S1-0208	A08
S1-0209	A09
S1-0210	A10
S1-0211	A11
S1-0212	A12
S1-0213	A13
S1-0214	A14
S1-0215	A15
S1-0216	A16
S1-0217	A17
S1-0218	A18
S1-0219	A19
S1-0220	A20
S1-0221	A21
S1-0222	A22
S1-0223	A23
S1-0224	A24
S1-0225	A25
S1-0226	A26
S1-0227	A27
S1-0228	A28
S1-0229	A29
S1-0230	A30
S1-0231	A31
S1-0232	A32
S1-0233	A33
S1-0234	A34
S1-0235	A35
S1-0236	A36
S1-0237	A37
S1-0238	A38
S1-0239	A39
S1-0240	A40

ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	UMB111063	UMBILICAL 4-WAY	RUBBER
2	B	DESS2P05	5/16" JIC FM	AISI 316
3	1	DE-7	CHINESE FINGER	STEEL
4	4	1AWDVG0	3/8" HOSES-7500 PSI-OD 17.5 MM	RUBBER
5	5	FILLER	8 MM ROPE DANLINE	NYLON

OD: 52.25
 MFR STATIC: 470 MM
 MFR DYNAMIC: 675 MM
 WP: 517 BAR
 TP: 775 BAR
 HOSE WEIGHT: APPROX. 2.4 KG PER METER

DESIGNED BY	16/05/13	DRAWING NUMBER	UMB111063-A
CHECKED BY	16/05/18	DESCRIPTION	A HYDRAULIC UMBILICAL 4-WAY
APPROVED BY	18/05/18	PROJECT TITLE	PO VAD04-RE-1-0001
PARTIAL		CLIENT	
SCALE	1:1	DRAWING NOT TO SCALE	
STATUS	Work in Progress		



FLUX

We are a leading service provider of high quality hoses, couplings and services to the oil and gas industry and other marine players. Flux performs inspections, detailed maintenance and recertification both onshore and offshore. We work with well recognised suppliers in the industry and strive to deliver supply chain excellence.

A PART OF FLUX GROUP

Flux Group is a provider of products and services across the flow and fluid control sector of the oil and gas industry. Through acquisitions and organic development, we have established attractive positions in valves and piping, and we have ambitions for further growth in selected segments of the oil and gas service industry.



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