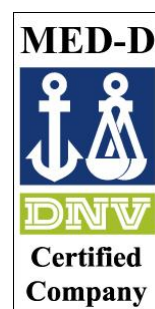


Operation and Service Manual for HERMetric OXY all versions



Note: before using the instrument
please read this book.



This document is subject to changes without notice.
Check updates on www.tanksystem.com or contact us at tanksystem@honeywell.com

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2. General

The HERMetric OXY is designed for sampling inert gas in closed tanks before crude oil washing. It consists of a rubber sampling hose with an on-line valve at the upper end, an open hose end for connecting to a portable gas analyzer (not supplied with the OXY), a weight at the lower end and an adapter with a hose adjusting nut.

It is made for connecting to the HERMetric valves. When the OXY is connected to the valve, the operation is carried out with negligible escape of gas to the atmosphere.

3. Recommendation for safe use

This Operation and Service Manual is a guide in order to help the user to operate the instrument safely and correctly.

Nevertheless the maker disclaims all responsibility and liability for damage resulting from the use of the equipment regardless of the cause of the damage.

The I.M.O. requirements on Tanker Safety and Pollution Prevention, 1978 - resolution A.446 (XI) - § 6.6 states:

“Before each tank is crude oil washed, the oxygen level shall be determined at a point 1 meter from the deck and at the middle region of the ullage space and neither of these determinations shall exceed 8 per cent by volume.”

This product and his use is / may be related to international, national, local or company regulations or standards. It is the customer / user responsibility to ensure that the way to use the device complies with such applicable regulations or standards.

This device is a portable product. It must not be permanently installed on the tank and must be disconnected after use and stored in a safe and dry area.

4. General information

4.1 Disclaimer

This manual is designed and written to provide information with regard to the subject matter involved. Enraf Tanksystem SA makes no warranty, express or implied, that it is fit for any purpose whatsoever; or to the absolute sufficiency of the material presented.

Enraf Tanksystem SA assumes no responsibility for any inaccuracies in reproduction or errors in interpretation of any authority. Enraf Tanksystem SA reserves the right to modify or amend this manual, without prior notification, but Enraf Tanksystem SA assumes no responsibility to update or issue corrections.

4.2 Shipment note

The following parts should be included in the shipment:

- 1 instrument;
- 1 Operation and Service Manual.

4.3 Initial inspection

Check the contents of the shipment for completeness and note whether any damage has occurred during transport. Carry out the "Initial test before installing the instrument" to verify the good functioning. If the contents are incomplete, or if there is damage, do not use the device. A claim should be filled with the carrier immediately, and Enraf Tanksystem SA Sales or Service organization should be notified in order to facilitate the repair or replacement of the instrument.

4.4 Documentation discrepancies

The design of the instrument is subject to continuous development and improvement. Consequently, the instrument may incorporate minor changes in detail from the information contained in the manual.

4.5 Warranty

12 months after installation but max. 18 months after delivery ex works.

The Vendor undertakes to remedy any defect resulting from faulty design materials or workmanship. The Vendor's obligation is limited to the repair or replacement of such defective parts by his own plant or one of his authorized service stations. The Purchaser shall bear the cost and risk of transportation of defective parts and repaired parts supplied in replacement of such defective parts.

This warranty does not apply to those items which by their nature are subject to deterioration or consumption in normal service, and which must be cleaned, or replaced on a routine basis.

When returned to Enraf Tanksystem SA equipment must be contamination-free. If it is determined that the Purchaser's equipment is contaminated, it will be returned to the Purchaser at the Purchaser's expense. Contaminated equipment will not be repaired, replaced, or covered under any warranty until such time that the Purchaser decontaminates the said equipment.

The Purchaser shall notify by fax, telex or in writing of any defect immediately upon discovery, specifying the nature of the defect and/or the extent of the damage caused thereby.

Where no other conditions have been negotiated between the Vendor and the Purchaser "General Conditions 188" of United Nations shall apply.

Unauthorized repair or component replacement by non original spare parts by the Purchaser will void this guarantee and may impair the good functioning of the instrument.

This warranty is expressly in lieu of any and all other warranties and representations expressed or implied, and all other obligations or liabilities on the part of the Vendor (Enraf Tanksystem SA) including but not limited to, the warranty of merchantability or fitness for a particular purpose.

In no event shall Enraf Tanksystem SA be liable for indirect, incidental or consequential loss or damage or failure of any kind connected with the use of its products or failure of its products to function or operate properly.

Enraf Tanksystem SA do not assume the indemnification for any accident or damage

caused by the operation of its product and the warranty is limited to the replacement of parts or complete goods.

4.6 Spare parts

When ordering spares identify the spare part by TS number and description. Refer to section "Drawings".

Some spares might be repairable; in this case send part to any authorized service center or to the factory.

In case of urgency replacement units can be available while stocks last.

4.7 Service and Repair

The customer should take care of the freight and customs clearance charges. If units are sent on "freight collect " the charges will be invoiced to the customer.

When returning units or parts for repair to the factory please fill out a service request form (see next page).

Service Request

Customer's address:

Telephone:

Telex:

Fax:

Type of unit or part:

Short description of defective unit or part:

Do you want a quotation before repair is started:.....yes / no.....

Repaired unit has to be returned to the following address:

.....

5. Worldwide Service Stations network

The updated list can be found on our website www.tanksystem.com

COUNTRY	ADDRESS	TELEPHONE/FAX/E-MAIL
SWITZERLAND	ENRAF TANKSYSTEM SA 2, rue de l'Industrie CH-1630 BULLE	Tel : +41-26-91 91 500 Fax : +41-26-91 91 505 Tanksystem@honeywell.com
CANADA	PYLON ATLANTIC A Div. Of Pylon Electronics Inc. 31 Trider Crescent., DARTMOUTH, N.S. B3B 1V6	Tel : +1-902-4683344 Fax : +1-902-4681203 halifax_csr@pylonelectronics.com
CHINA	HUA HAI EQUIPMENT & ENGINEERING CO LTD Factory 7, Lane 1365, East Kang Qiao Road Kang Qiao Industrial Zone, Pu Dong SHANGHAI, P.C. 201315	Tel : +86-21-68183183 Fax : +86-21-68183115 huahaish@huahaiee.com
GERMANY	CHRISTIAN BINDEMANN MARINE TECHNICAL SERVICES Gärtnerstrasse 81G D-25469 HALSTENBEK BEI HAMBURG	Tel : +49-40-41918846 / +49-40-57148252 Fax : +49-40-41918847/+49-40-57148271 service@mkecb.com
GREECE	SPANMARIN 86, Filonos Street, 2 nd Floor GR-185 36 PIRAEUS	Tel : +30-210-4294498 Fax : +30-210-4294495 spanmarin@ath.forthnet.gr
JAPAN	DAIWA HANBAI CORPORATION LTD 2-10-31, Mitejima, Nishiyodogawa-ku OSAKA 555-0012	Tel : +81-6-64714701 Fax : +81-6-64729008 daiwa471@silver.ocn.ne.jp
KOREA	World Ocean CO., LTD Rm1001, Hae-deok Bldg., 1212-11 Choryang-dong Dong-Gu BUSAN	Tel : +82-51-462-2554/5 Fax : +82-51-462-0468 info@worldocean.co.kr
MEXICO	URBAN DEL GOLFO SA DE CV Julian Carrillo No. 709 Nte. COL. LOS MANGOS 89440 Cd. MADERO, Tamps, MEXICO	Tel : +52-833-2170190 Fax : +52-833-2170190 urbansa@prodigy.net.mx
NETHERLANDS & BELGIUM	B.V. TECHNISCH BUREAU UITTENBOGAART Nikkelstraat 7 NL-2984 AM RIDDERKERK	Tel : +31-88-368 00 00 Fax : +31-88-368 00 01 info@tbu.nl

The updated list can be found on our website www.tanksystem.com

COUNTRY	ADDRESS	TELEPHONE/FAX/E-MAIL
PORTUGAL	CONTROLIS, Lda. Rua Conceição Sameiro Antunes, 26-E Cova da Piedade 2805-122 – Almada	Tel : +351-21-2740606 Fax : +351-21-2740897 controlis.port@gmail.com
RUSSIA	NPP "GERDA" Vilisa Latsisa str. 17 / Building 1 125480 MOSCOW	Tel : +7-495-7558845 Fax : +7-495-7558846 info@gerda.ru
SINGAPORE	HUBBELL INT'L (1976) PTE LTD 322 Thomson Road SINGAPORE 307665	Tel : +65-6-2557281 / +65-6-2550464 Fax : +65-6-2532098 hubbell@mbox2.singnet.com.sg
SPAIN	E.N.I. Electronica y Neumatica Industrial, S.A. C/Jon Arrospide, 20 (Int.) 48014 BILBAO	Tel : +34-94-4746263 Fax : +34-94-4745868 tecnic@eni.es
SWEDEN	INSTRUMENTKONTROLL Lars Petersson AB Varholmsgatan 1 414 74 GÖTEBORG	Tel : +46-31-240510 Tel : +46-31-240525 Fax : +46-31-243710 Info@instrumentkontroll.se
TURKEY	YEDI DENIZ MALZEME VE GUVENLIK Setustu, Izzetpasa Yok.1 TR 34427 Kabatas ISTANBUL	Tel : +90.212.251 64 10 / 3 lines Fax : +90.212.251 05 75 servicestation@yedideniz.net dmgistanbul@yahoo.com
UNITED ARAB EMIRATES	MARITRONICS TRADING L.L.C. P.O. Box 6488 Shed # 72, Jadaf Ship Docking Yard DUBAI MARITRONICS TRADING L.L.C. P.O. Box 9476 FUJAIRAH	Tel : +971-4-3247500 Fax : +971-4-3242500 service@maritronics.com Tel : +971 9 2234909 Fax : +971 9 2234898 Mob : +971 50 5570854 service@maritronics.com
UNITED KINGDOM	ENERGY MARINE (INTERNATIONAL) LTD. 12 Clipstone Brook Industrial Estate Cherrycourt Way LEIGHTON BUZZARD, BEDS, LU7 4TX	Tel : +44-1525-851234 Fax : +44-1525-852345 info@engmar.com
U.S.A / TEXAS	HONEYWELL HERMETIC 4522 Center Street DEER PARK, TX 77536	Tel : +1-281-930 1777 Fax : +1-281-930 1222 Toll free call in the USA: 1-800-900 1778 hermetic@honeywell.com

6. Operation

1. Check that the on-line valve and the HERMetric valve are properly closed.
2. install the HERMetric OXY on the HERMetric valve via the quick coupling device.
3. Open the valve.
4. Slacken the adjusting nut on top of the OXY adapter to allow the sampling hose to be lowered to the desired level.
5. When the level is reached tighten the adjusting nut to secure the hose in position.
6. Install the monitoring equipment (gas analyser, not supplied with the OXY) at the free end of the ose.
7. Open the on-line valve.
8. Follow the operation instructions of the monitoring equipment manufacturer.
9. When the oxygen content is determined, close the on-line valve, slacken the adjusting nut and pull out the hose.
10. Take care not to damage the hose when through edge of hatch cover.
11. When the weight is stored in the OXY tube, close the HERMetric Compact/Deck valve and remove the OXY.
12. Clean the OXY the next check..

7. Maintenance

7.1 General Care & Considerations

For long working life, keep the HERMetric OXY clean and well lubricated and, when not in use, stored it in a dry and protected location.

When ordering spare parts, always state the drawing and the item number.

Equipment does not contain any dangerous materials inside which can harm the environment and people health during normal use or disposal. However the utilization and recycling of the equipment after the end of its life must be implemented by an authorized organization in accordance to local legislation.

Do not throw in rubbish but recycle wastes in accordance to environmental / local rules.



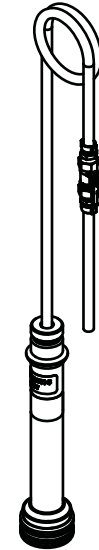
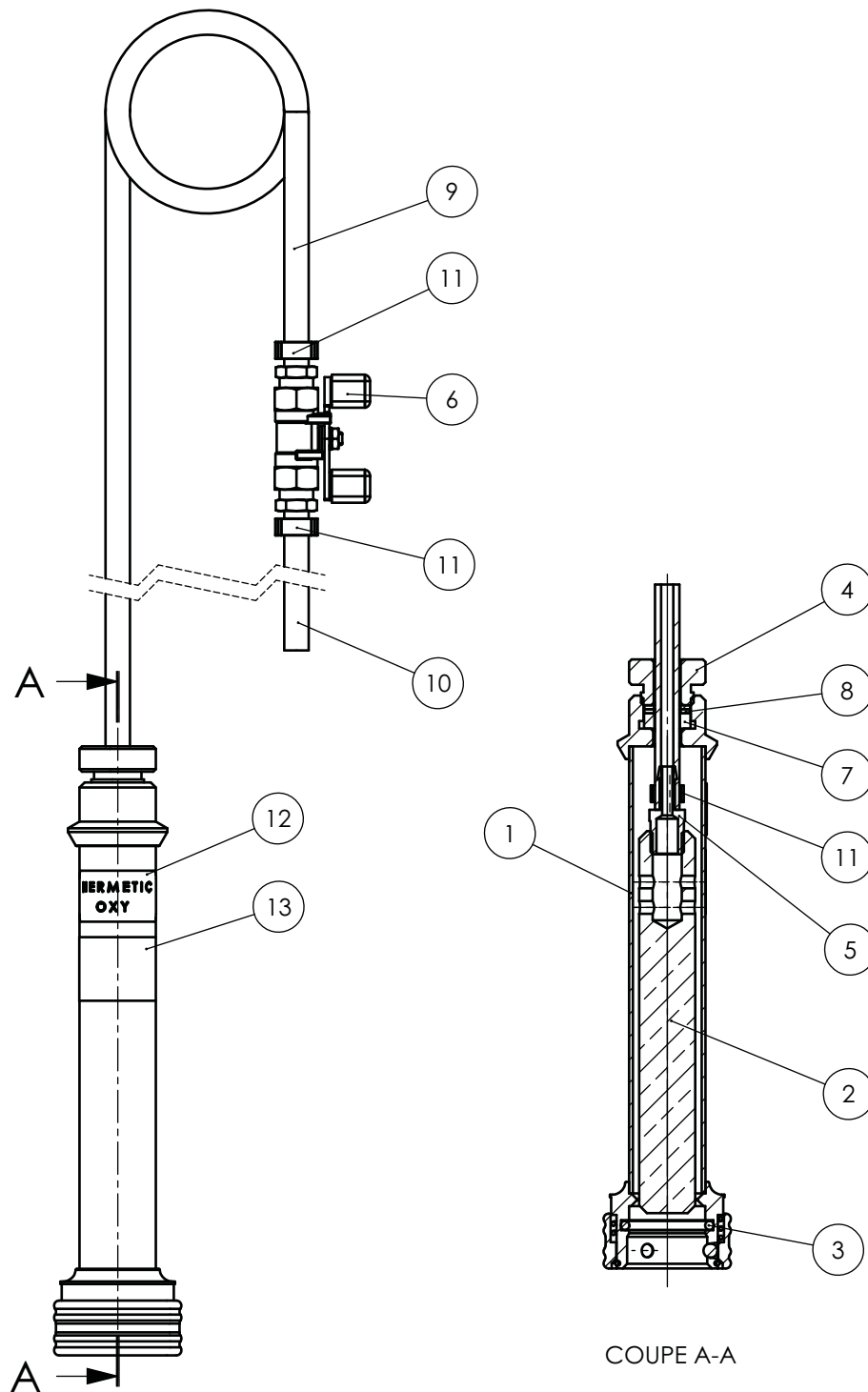
8. Drawings

	ND	TS	DESCRIPTION
	30276	10070	OXY 15m Tanol hose St.St. 1"
	30408	10011	OXY 15m Tanol hose 1"
	30409	10012	OXY 30m Tanol hose 1"
	30413	10009	OXY without hose
	30414	10071	OXY 30m Tanol hose St.St. 1"
	41160	22566	Adaptor 1" - 2"

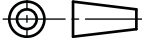
A diagram of a hand pump sprayer. It consists of a cylindrical tank with a handle on top. A pump mechanism is located on the side of the tank. A hose connects the pump to a spray gun. The spray gun has a trigger and a nozzle. The nozzle is shown spraying a fine mist.

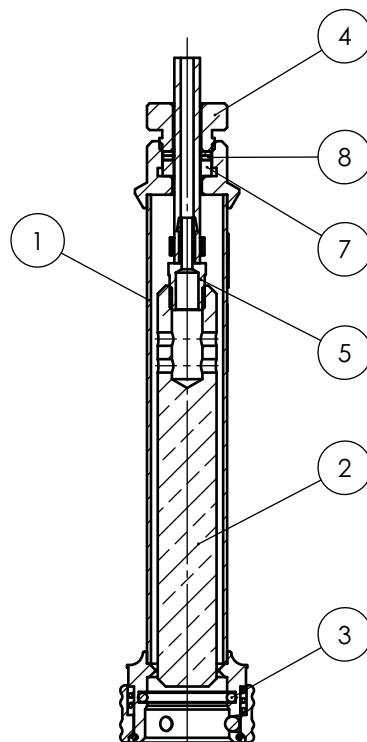
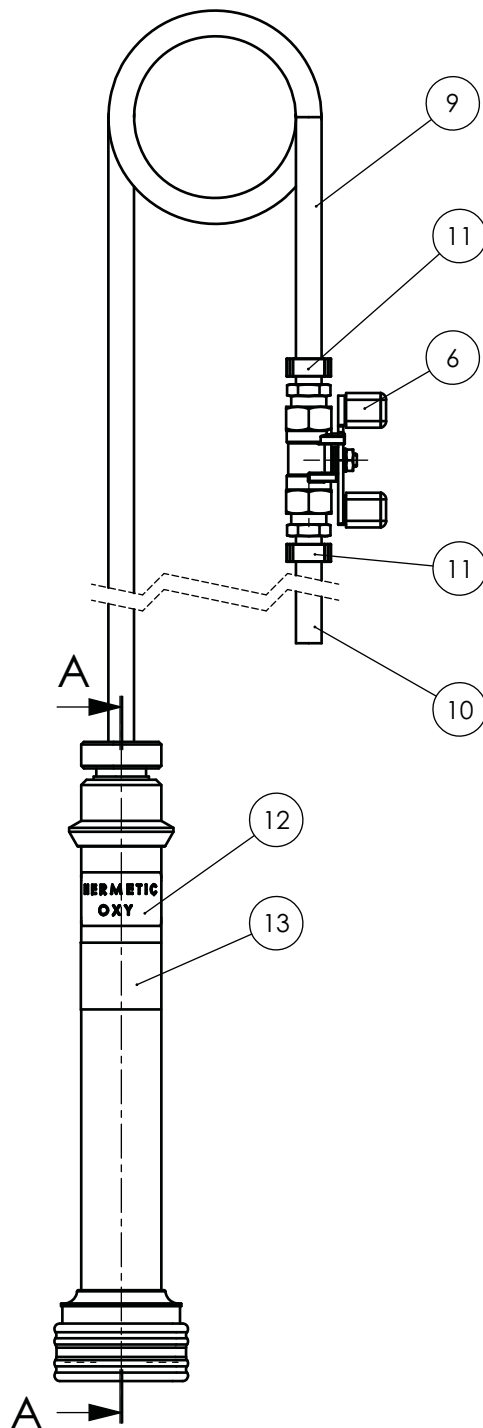


TOLERANCES UNLESS OTHERWISE SPECIFIED										Weight:		ISSUE 4 : 15.07.2014	
Norm. Size	Over		6	30	100	300	1000	Angles		1181.0 Eff.			
Fit	To	6	30	100	300	1000	2000						
Fine	±	0.05	0.1	0.15	0.2	0.3	0.5	0.1°					
REMOVE ALL BURRS AND SHARP EDGES										1:2		MPSA YYYY	
Drawn:		Control:										Replacement for:	
CPI 09.07.2012										ND		Replaced by: ND	
HERMeTic OXY										TS 10070			
OXY 15m Tanol hose St. St. 1"										ND 30276			
										REF ND			
This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.										Enraf Tanksystem SA			
										RUE DE L'INDUSTRIE 2 CH-1630 BULLE Tel. +41 26 91 91 500 - Fax +41 26 91 91 505			



Item	Qty	Weight	Description	Material	TS	ND
1	1	513.2	Storage tube 1" Oxy, Press, Dip 1	-	16010	30595
2	1	444.6	Weight	Brass	16002	40219
3	1	1.0	O-Ring ø 29,7 x 3,53	FKM	11132	
4	1	62.5	Wheel G 1/2"	1.4301	16007	40489
5	3	16.6	Hose nipple	Brass	16500	
6	1	52.1	Valve G 1/4" female Cylindrical thread	-	20151	41094
7	1	1.5	Seal	NBR	16520	
8	2	0.3	Pressure washer 10.5/18 x 1.6	A2	16521	DIN 433
9	1	45.1	Tanol hose 15 m.	Tanol	16514	
10	1	8.1	Tanol hose 3 m	Tanol	16511	
11	3	1.9	Hose clip 9/11	A2	16519	
12	1	0.1	Label " OXY "	-	50009	40347
13	1	0.2	Label " Enraf Tanksystem "	-	50006	40343

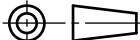
TOLERANCES UNLESS OTHERWISE SPECIFIED										Weight: 1184.4 Eff.	ISSUE 4 : 09.07.2012	
Norm.	Size	Over	6	30	100	300	1000	Angles				
Fit	To	6	30	100	300	1000	2000					
Fine	±	0,05	0,1	0,15	0,2	0,3	0,5	0,1°				
REMOVE ALL BURRS AND SHARP EDGES										1:2	MPSA YYYN	
Drawn: CPI 09.07.2012		Control:									Replacement for: ND	Replaced by: ND
HERMeTic OXY OXY 15m Tanol hose 1"										TS 10011		
										ND 30408		
										REF ND		
This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.										Enraf Tanksystem SA RUE DE L'INDUSTRIE 2 CH-1630 BULLE Tel. +41 26 91 91 500 - Fax +41 26 91 91 505		

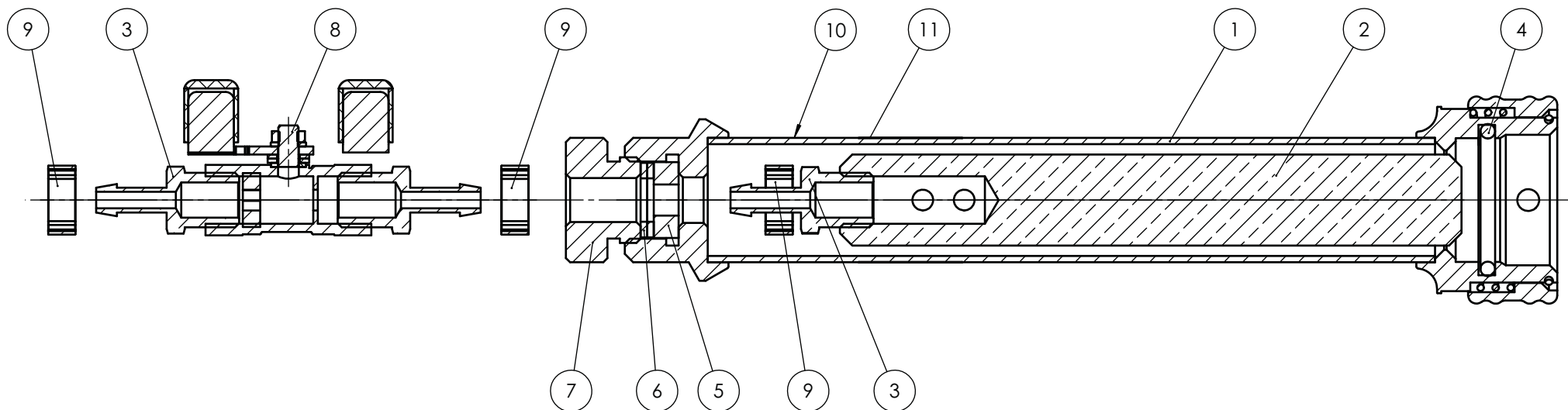


COUPE A-A



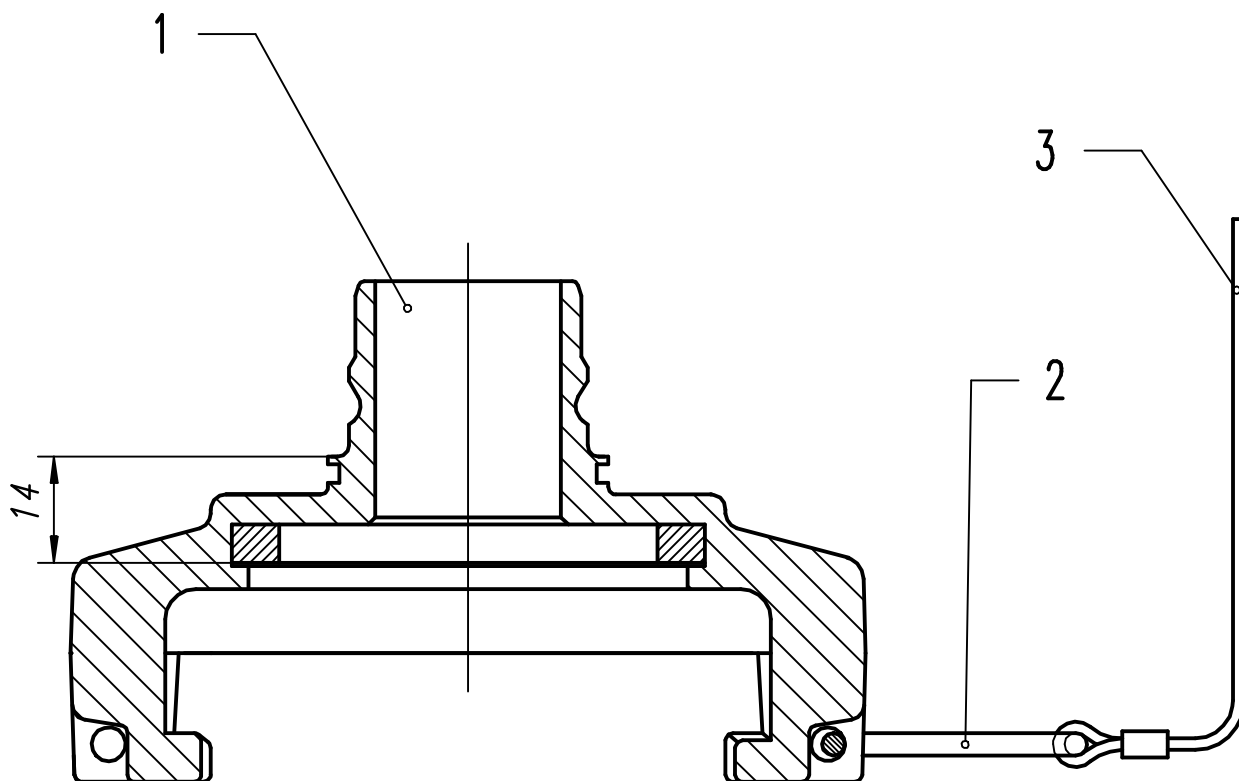
Item	Qty	Weight	Description	Material	TS	ND
1	1	513.2	Storage tube 1" Oxy, Press, Dip 1	-	16010	30595
2	1	444.6	Weight	Brass	16002	40219
3	1	1.0	O-Ring ø 29,7 x 3,53	FKM	11132	
4	1	62.5	Wheel G 1/2"	1.4301	16007	40489
5	3	16.6	Hose nipple	Brass	16500	
6	1	52.1	Valve G 1/4" female Cylindrical thread	-	20151	41094
7	1	1.5	Seal	NBR	16520	
8	2	0.3	Pressure washer 10.5/18 x 1.6	A2	16521	DIN 433
9	1	45.1	Tanol hose 30 m.	Tanol	16515	
10	1	8.1	Tanol hose 3 m	Tanol	16511	
11	3	1.9	Hose clip 9/11	A2	16519	
12	1	0.1	Label " OXY "	-	50009	40347
13	1	0.2	Label " Enraf Tanksystem "	-	50006	40343

TOLERANCES UNLESS OTHERWISE SPECIFIED										Weight:		ISSUE 4 : 09.07.2012	
Norm. Size		Over	6	30	100	300	1000	Angles	1184.4 Eff.		MPSA YYYN 		
Fit	To	6	30	100	300	1000	2000						
Fine	±	0,05	0,1	0,15	0,2	0,3	0,5	0,1°	1:2		Replaced by: ND		
REMOVE ALL BURRS AND SHARP EDGES											Replacement for: ND		
Drawn:		CPI 09.07.2012								Control:			
HERMeTic OXY OXY 30 m Tanol hose 1"										TS 10012			
										ND 30409			
										REF ND			
This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.										Enraf Tanksystem SA		RUE DE L'INDUSTRIE 2 CH-1630 BULLE Tel. +41 26 91 91 500 - Fax +41 26 91 91 505	



Item	Qty	Weight	Description	Material	TS	ND
1	1	513.2	Storage tube 1" Oxy, Press, Dip 1	-	16010	30595
2	1	444.6	Weight	Brass	16002	40219
3	3	16.6	Hose nipple	Brass	16500	
4	1	1.0	O-Ring $\varnothing$ 29,7 x 3,53	FKM	11132	
5	1	1.5	Seal	NBR	16520	
6	2	0.3	Pressure washer 10.5/18 x 1.6	A2	16521	DIN 433
7	1	62.5	Wheel G 1/2"	1.4301	16007	40489
8	1	52.1	Valve G 1/4" female Cylindrical thread		20151	41094
9	3	1.9	Hose clip 9/11	A2	16519	
10	1	0.1	Label " OXY "	-	50009	40347
11	1	0.2	Label " Enraf Tanksystem "	-	50006	40343

TOLERANCES UNLESS OTHERWISE SPECIFIED										Weight:	ISSUE 4 : 09.07.2012
Norm.	Size	Over		6	30	100	300	1000	Angles		
Fit	To	6		30	100	300	1000	2000			
Fine	±	0,05	0,1	0,15	0,2	0,3	0,5	0,1"			
REMOVE ALL BURRS AND SHARP EDGES										1:1	MPSA YNNN
Drawn:		Control:									
CPI		09.07.2012								Replacement for:	Replaced by:
										ND	ND
HERMeTic OXY										TS 10009	
Oxy without hose										ND 30413	
										REF ND 30408/30409	
This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.										Enraf Tanksystem SA RUE DE L'INDUSTRIE 2 CH-1630 BULLE Tel. +41 26 91 91 500 - Fax +41 26 91 91 505	



Item	Qt	Weight	Description	Material	TS #	ND #
1	1	401	Connector 1" - 2" FKM	-	22563	41032
2	1	5	S Holder	AISI 304	11902	40537
3	1	7	Short cable assy	-	55135	40999

TOLERANCES UNLESS OTHERWISE SPECIFIED								Weight:		ISSUE 1 : 4.1.2001		
Norm. Size	Over		6	30	100	300	1000	Angles	413 Th.			410 Eff.
Fit	To	6	30	100	300	1000	2000					
Fine	±	0,05	0,1	0,15	0,2	0,3	0,5		0,1°			
REMOVE ALL BURRS AND SHARP EDGES								1 : 1		MPSA 3110		
Drawn:		Control:								Replacement for:		Replaced by:
cpi		04.01.2001								ND		
Valves Adaptor 1'-2' with short cable										TS 22566		
										ND 41160		
										REF ND		

Is Date
Visa
Modification

This drawing is our property and must not without our permission be copied or made available to others.
The receiver is responsible for every misuse.

Enraf Tanksystem SA
RUE DE L'INDUSTRIE 2 CH-1630 BULLE
Tel. +41 26 91 91 500 - Fax +41 26 91 91 505