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CATALOGUE MANUAL HOSE REELS No. E15/AM



cardboard • polyethylene sack • polystyrene • paper • wood • nails • plastic strap • cellophane • clips • gummed paper



OUR STRENGTHS

The widest range of manual hose reels designed to meet all the needs of our clients, even the most specific.

The quality, reliability and design that have always distinguished Ecodora brand in the global market.

The research and development as a flagship of our company to always offer cutting-edge solutions.

A technical service before and after sales to recommend the most suitable product according to the customer's needs as well as to provide support to the end users.

OUR AIMS

To develop a long lasting cooperation with our customers by listening to their needs and their expectations.

To meet every user's need by offering only high quality products.



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STUDY, RESEARCH AND DESIGN

The real strength of a firm starts with the ability of its study and research departments to always find the most suitable solutions to address market demands.

ASSEMBLY LINES

Dedicated equipment specially designed to facilitate assembly operations, at the same time allowing an effective and automatic control of quality.





APPLICATION FIELDS

The resistance, manageability and the capacity of the manual hose reels are important characteristics. With these qualities, the manual hose reels are usable in all the working environments, as, for example, in agriculture, shipyard and many other.





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ACCESSORIES
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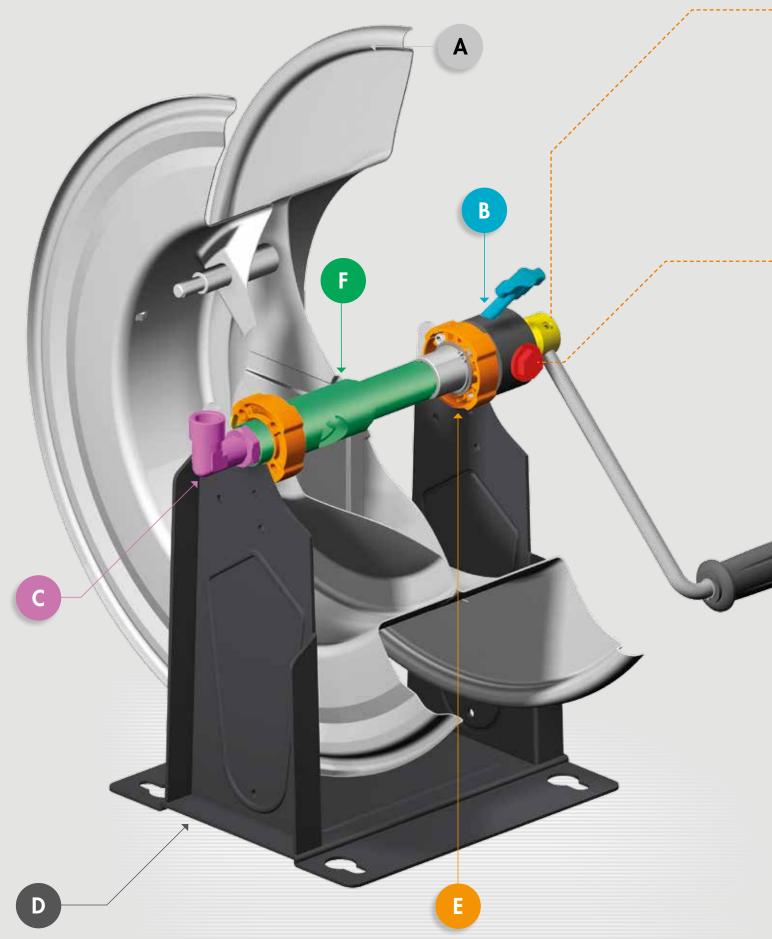
- security system that prevents the handle rotation while the hose unreels, thus avoiding accidental damages to people or things
- ► AISI 304 or AISI 316 stainless steel version for particularly aggressive environments
- epoxy powder paint with a minimum thickness of 80µm that ensures endurance and protection for the painted stainless steel version
- max reel capacity. The spring absence allows for the maximum utilization of the drum space
- ▶ great handling thanks to its lightweight
- available with rotation block for use in environments with vibrations (trucks, industrial machines, etc)
- ▶ the Series 700 allows for the customization of the reeling side
- ► compatible with numerous fluids types, also aggressive (see compatibility chart)

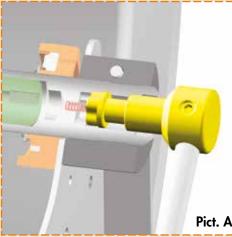


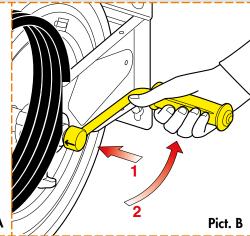
The handle rotation lock system, designed by ECODORA, allows you to work without any concerns.

Series 430-530-540-560

Technical characteristics







SECURITY SYSTEM

The hose reel is designed with a new security system that allows the handle to stay in place, avoiding the rotation during the manual hose unreeling (Picture A).

To rewind the hose, use the handle as follows (Picture B):

- 1 press on the knob that connects the handle to the drum
- **2** rotate handle counterclockwise

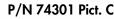
P/N 74301 ROTATION LOCK (Picture C)

This special device stops any drum movement and is available only on request.

Its use is highly recommended during moving applications (i.e. trucks, machineries subject to vibrations, etc.).

STOPPER (Picture D)

In the absence of the rotation lock, a stopper will protect the clutch from foreign particles accessing it.



DRUM

Sturdy and practical, with beads to reinforce the structure and rounded border. Available with painted steel, ABS schock proof drum, AISI 304 or AISI 316 stainless steel version.



С

D

Α

REGULATION CLUTCH

Allows to regolate the drum rotation speed during the hose unwinding. it works also as a rotation lock.

SWIVEL JOINT

Designed with the ideal internal dimensions to guarantee the most possible flow. It is realized, depending on the model, in brass, galvanized steel, AISI 304 or AISI 316 stainless steel, with seals in Polyurethane, Viton[®] and Teflon[®].

Pict. D

WALL BRACKET

Solid and compact in painted steel, AISI 304 or AISI 316 stainless steel bracket with 4 slotted mounting holes for easy and safe installation.

DRUM SUPPORT BUSHINGS

Drum support bushings in Tenaxid, self lubricating, material resistant against corrosion.

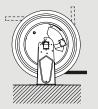
CENTRAL PIN

In galvanized steel or in stainless steel AISI 304 or AISI 316. Suitable to work with different kinds of fluids and with passages sized to avoid pressure losses.

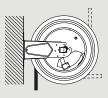
HOSE REEL INSTALLATION

F

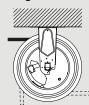
Bench installation



Wall installation



Ceiling installation







MANUAL

Both the drum and the bracket in the **S. 430 manual** hose reels are in painted steel or AISI 304 or AISI 316 stainless steel. This contributes to their resistance in time and in particularly aggressive opvironments environments.





PAINTED

STEEL



AISI 304 - 316 STAINLESS

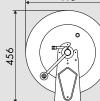
STEEL

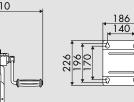
Note: All the hose reels in the table are without hose

PAINTED STEEL	PAINTED STEEL AISI 304 S. STEEL AISI 316 S. STEEL		STEEL AISI 316 S. STEEL Connection	
P/N	P/N	P/N	inlet	outlet
74300/10	74320/10	-	F1/2″G	F1/2″G
74300/20	74340/20 *	74350/20 **	F1/2″G	F1/2″G
74300/30	74340/30	74350/30 **	F3/8″G	F1/2″G
74300/35	74340/35	74350/35 **	F3/8″G	F1/2″G
74300/40	-	-	F1/2″G	F1/2″G
74300/50	74320/50	-	F 3/8" G	F 1/2" G
74300/60	74320/60	-	F 1/2" G for hoses	M 1/2" G from 5/8″ 3/4″
	P/N 74300/10 74300/20 74300/20 74300/30 74300/35 74300/40 74300/50	P/N P/N 74300/10 74320/10 74300/20 74340/20 * 74300/30 74340/30 74300/35 74340/35 74300/40 - 74300/50 74320/50	P/N P/N P/N 74300/10 74320/10 - 74300/20 74340/20 * 74350/20 ** 74300/30 74340/30 74350/30 ** 74300/35 74340/35 74350/35 ** 74300/40 - - 74300/50 74320/50 -	P/N P/N P/N inlet 74300/10 74320/10 - F1/2"G 74300/20 74340/20* 74350/20** F1/2"G 74300/30 74340/30 74350/30** F3/8"G 74300/35 74340/35 74350/35** F3/8"G 74300/40 - - F1/2"G 74300/40 - - F1/2"G 74300/40 - - F1/2"G 74300/40 - - F1/2"G 74300/40 74320/40 - F1/2"G

Hose reel capacity

ø hose external		Series 430
1/4″	14 mm	Length max 40 m
3/8″	17 mm	Length max 18 m
1/2″	20 mm	Length max 15 m
5/8″	21 mm	Length max 12 m
3/4″	27 mm	Length max 8 m







Hose reel Series 4430 ABS

MANUAL with ABS shock proof drum

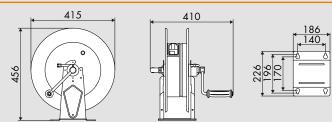


Note: for special fluids see the compatibility table at page 26

* suitable also for oil

Hose reel capacity

ø hose external		Series 4430 ABS
1/4″	14 mm	Length max 40 m
3/8″	17 mm	Length max 18 m
1/2″	20 mm	Length max 15 m
5/8 ″	21 mm	Length max 12 m
3/4″	27 mm	Length max 8 m





MANUAL



Note: All the hose reels in the table are without hose

Fluid - Pressure	PAINTED STEEL AISI 304 S. STEEL AISI 316 S. STEEL		AISI 304 S. STEEL AISI 316 S. STEEL Connection		ection
riula - Fressure	P/N	P/N	P/N	inlet	outlet
Air - Water 20 bar - brass swivel joint - Viton ® seals	75300/10	75320/10	-	F1/2″G	F1/2″G
Water max 130° C 100 bar - AISI 304 stainless steel swivel joint - Viton [®] seals	75300/20	75340/20 *	75350/20 **	F1/2″G	F1/2″G
Water max 130° C 200 bar - AISI 304 stainless steel swivel joint - Viton [®] seals	75300/30	75340/30	75350/30 **	F3/8″G	F1/2″G
Water max 130° C 400 bar - AISI 304 stainless steel swivel joint - Teflon [®] seals	75300/35	75340/35	75350/35 **	F3/8″G	F1/2″G
Oil and similar 150 bar - galvanized steel swivel joint - "polyurethane" seals	75300/40	-	-	F1/2″G	F1/2″G
Grease 600 bar - galvanized steel swivel joint - "polyurethane" seals	75300/50	75320/50	-	F 3/8" G	F 1/2" G
Diesel fuel 10 bar - brass swivel joint - Viton ® seals	75300/60	75320/60	-	F 1″ G	F 1″ G

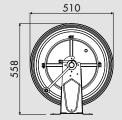
Note: for special fluids see the compatibility table at page 26

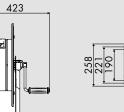
* suitable also for oil

** AISI 316 stainless steel swivel joint

Hose reel capacity

ø hose	Series 530	
1/4″	14 mm	Length max 60 m
]_ 3/8″	17 mm	Length max 35 m
1/2″	20 mm	Length max 25 m
5/8″	21 mm	Length max 18 m
3/4″	27 mm	Length max 15 m
1″	34 mm	Length max 7 m







MANUAL



Fluid - Pressure	PAINTED STEEL	AISI 304 S. STEEL	AISI 316 S. STEEL	Conn	ection
riola - riessore	P/N	P/N	P/N	inlet	outlet
Air - Water 20 bar - brass swivel joint	75400/10	75420/10	-	F 1″ G	F 1″ G
- Viton [®] seals	75400/15	75420/15	-	F 1/2″ G	F 1/2″ G
Water max 130° C 100 bar	75400/20	75440/20 *	75450/20 **	F 1″ G	F 1″ G
- AISI 304 stainless steel swivel joint - Viton® seals	75400/25	75440/25 *	-	F 1/2″ G	F 1/2″ G
Water max 130° C 200 bar - AISI 304 stainless steel swivel joint - Viton [®] seals	75400/30	75440/30	-	F3/8″G	F1/2″G
Water max 130° C 400 bar - AISI 304 stainless steel swivel joint - Teflon [®] seals	75400/35	75440/35	-	F3/8″G	F1/2″G
Oil and similar 150 bar	75400/40	-	-	F 1″ G	F 1″ G
 - galvanized steel swivel joint - "polyurethane" seals 	75400/45	-	-	F 1/2″ G	F 1/2″ G
Grease 600 bar - galvanized steel swivel joint - "polyurethane" seals	75400/50	75420/50	-	F 3/8" G	F 1/2" G
Diesel fuel 10 bar - brass swivel joint - Viton ® seals	75400/10	75420/10	-	F 1″ G	F 1″ G

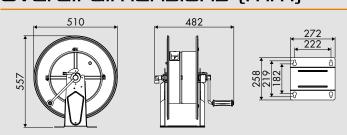
Note: for special fluids see the compatibility table at page 26

* suitable also for oil

** AISI 316 stainless steel swivel joint

Hose reel capacity

ø hose	Series 540	
1/4″	14 mm	Length max 110 m
3/8″	17 mm	Length max 60 m
1/2″	20 mm	Length max 45 m
5 /8″	21 mm	Length max 25 m
3/4″	27 mm	Length max 20 m
)1 ″	34 mm	Length max 15 m





MANUAL

Amongst the wall and ceiling installable hose reels types, **the Series 560 is the most spacious.** Regardless of its strength, the simple operation is maintenance free.





Note: All the hose reels in the table are without hose

Fluid - Pressure	PAINTED STEEL	AISI 304 S. STEEL	AISI 316 S. STEEL	Conne	ection
riula - Pressure	P/N	P/N	P/N	inlet	outlet
Air - Water 20 bar	75600/10	75620/10	-	F 1″ G	F 1″ G
- brass swivel joint - Viton® seals	75600/16	75620/16	-	F 1/2″ G	F 1/2″ G
Water max 130° C 100 bar	75600/20	75640/20 *	75650/20 **	F 1″ G	F 1″ G
- AISI 304 stainless steel swivel joint - Viton® seals	75600/26	75640/26 *	-	F 1/2″ G	F 1/2″ G
Water max 130° C 200 bar - AISI 304 stainless steel swivel joint - Viton [®] seals	75600/30	75640/30	-	F3/8″G	F1/2″G
Water max 130° C 400 bar - AISI 304 stainless steel swivel joint - Teflon [®] seals	75600/35	75640/35	-	F3/8″G	F1/2″G
Oil and similar 150 bar	75600/40	-	-	F 1″ G	F 1″ G
 - galvanized steel swivel joint - "polyurethane" seals 	75600/46	-	-	F 1/2″ G	F 1/2″ G
Grease 600 bar - galvanized steel swivel joint - "polyurethane" seals	75600/50	75620/50	-	F 3/8" G	F 1/2" G
Diesel fuel 10 bar - brass swivel joint - Viton ® seals	75600/10	75620/10	-	F 1″ G	F 1″ G

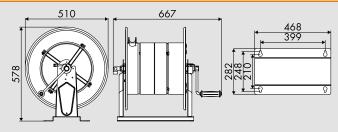
Note: for special fluids see the compatibility table at page 26

* suitable also for oil

** AISI 316 stainless steel swivel joint

Hose reel capacity

ø hose o	Series 560	
1/4″	14 mm	Length max 200 m
3/8″	17 mm	Length max 120 m
1/2″	20 mm	Length max 85 m
5/8″	21 mm	Length max 60 m
3/4″	27 mm	Length max 45 m
1″	34 mm	Length max 30 m





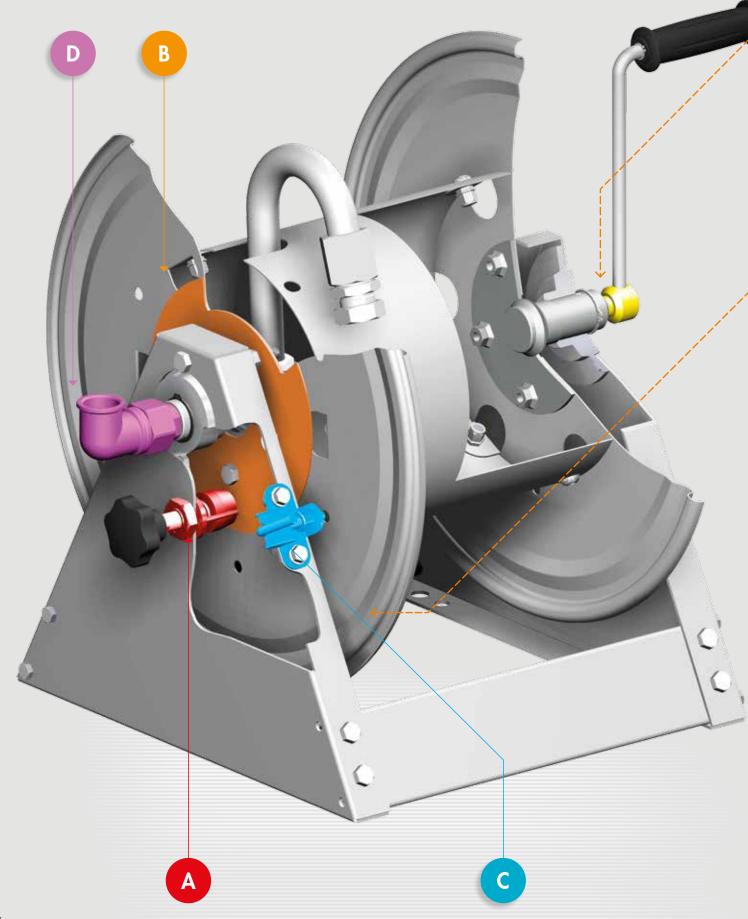
Application fields

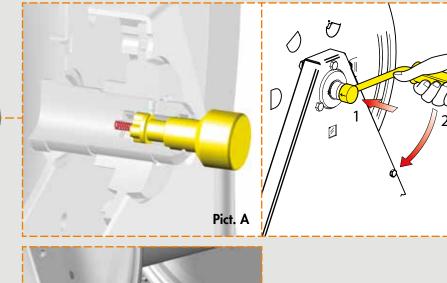
Agricultural pesticides treatments or roads cleaning are only two examples of the many uses that can be achieved with the Series 430-530 -540 and 560 manual hose reels. Other sectors where they can be utilized are: - industries - artisan businesses - automotive sector - pool washing

- basements
- ...and many more

Series 500

Technical characteristics





SECURITY SYSTEM

The hose reel is designed with a special, new security system that allows the handle to stay in place, preventing rotation during the manual hose-unwinding phase (Picture A).

To rewind the hose, use the handle as follows (Picture B):

- 1 Press on the knob that connects the handle to the drum
- 2 Turn handle clockwise



HOSE GUIDE WITH ROLLERS

Hose guide with rollers that ensure easy sliding of the hose during unwinding and rewinding.

Pict. B



CLUTCH IN POM

The clutch in POM (to be used only during unwinding), creates the necessary friction for regulating hose unwinding speed.

BREAKING DISK

Stainless steel disk where the clutch acts.

ROTATION LOCK

Manually lock for the drum rotation.

SWIVEL JOINT

Designed with the ideal internal dimensions to guarantee the most possible flow. It is realized, depending on the model, in brass, galvanized steel and AISI 304 stainless steel, with seals in Polyurethane or Viton[®].

HOSE REEL INSTALLATION

Bench and/or floor application



Installation is a very important phase for the safe use of the hose reel, thus we recommend following the installation procedure included in the instruction manual.



MANUAL

The Series 500 hose

reels are a practical and simple solution for the handling of hoses of a substantial length. Because of their simple operation, ordinary maintenance is not required. Build with high quality materials and with a sturdy structure, these hose reels are a great and economical alternative to aeven with considerable hose lengths.



Convenience and high capacity

Note: All the hose reels in the table are without hose

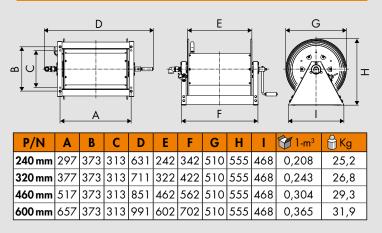


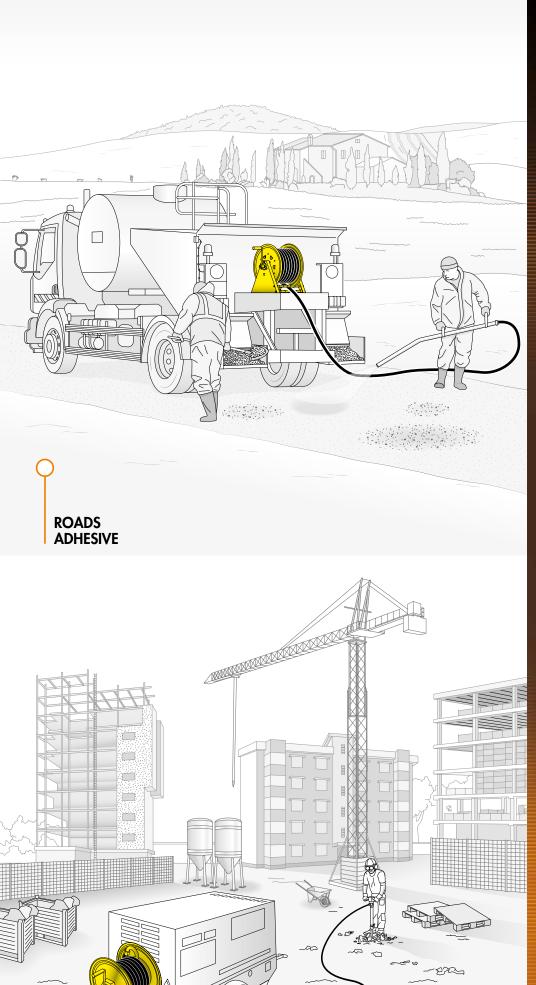
Fluid - Pressure	width	width	width	width	Connection	
riola - riessore	240 mm 320 mm		460 mm	600 mm	inlet	outlet
Air - Water 20 bar - brass swivel joint	0E7522001/100	0E7532001/100	0E7552001/100	0E7562001/100	F 1″ G	F 1″ G
- Viton [®] seals	0E7522001/150	0E7532001/150	0E7552001/150	0E7562001/150	F 1/2″ G	F 1/2″ G
Water max 130° C 100 bar	0E7522001/200	0E7532001/200	0E7552001/200	0E7562001/200	F 1″ G	F 1″ G
- AISI 304 stainless steel swivel joint - Viton® seals	0E7522001/250	0E7532001/250	0E7552001/250	0E7562001/250	F 1/2″ G	F 1/2″ G
Water max 130° C 200 bar - AISI 304 stainless steel swivel joint - Viton [®] seals	0E7522001/300	0E7532001/300	0E7552001/300	0E7562001/300	F3/8″G	F1/2″G
Oil and similar 150 bar - galvanized steel swivel joint	0E7522001/400	0E7532001/400	0E7552001/400	0E7562001/400	F 1″ G	F 1″ G
- "polyurethane" seals	0E7522001/450	0E7532001/450	0E7552001/450	0E7562001/450	F 1/2″ G	F 1/2″ G
Diesel fuel 10 bar - brass swivel joint - Viton ® seals	0E7522001/100	0E7532001/100	0E7552001/100	0E7562001/100	F 1″ G	F 1″ G

Note: for special fluids see the compatibility table at page 26

Hose reel capacity

ø h	ose exter	nal	240 mm	320 mm	460 mm	600 mm
	1/4″	14 mm	100 m	150 m	220 m	300 m
	3/8″	17 mm	50 m	80 m	120 m	160 m
	1/2″	20 mm	40 m	70 m	105 m	140 m
	3/4″	27 mm	25 m	40 m	60 m	80 m
	1″	34 mm	20 m	30 m	45 m	60 m





CONSTRUCTION

SITES

Application fields

Thanks to their sturdiness, the Series 500 hose reels are ideal for heavy work contexts as road maintenance and construction sites. They can also be

- employed in: agricolture
- mines
- refineries
- aeronautics
- shipyards and
 ...and many more

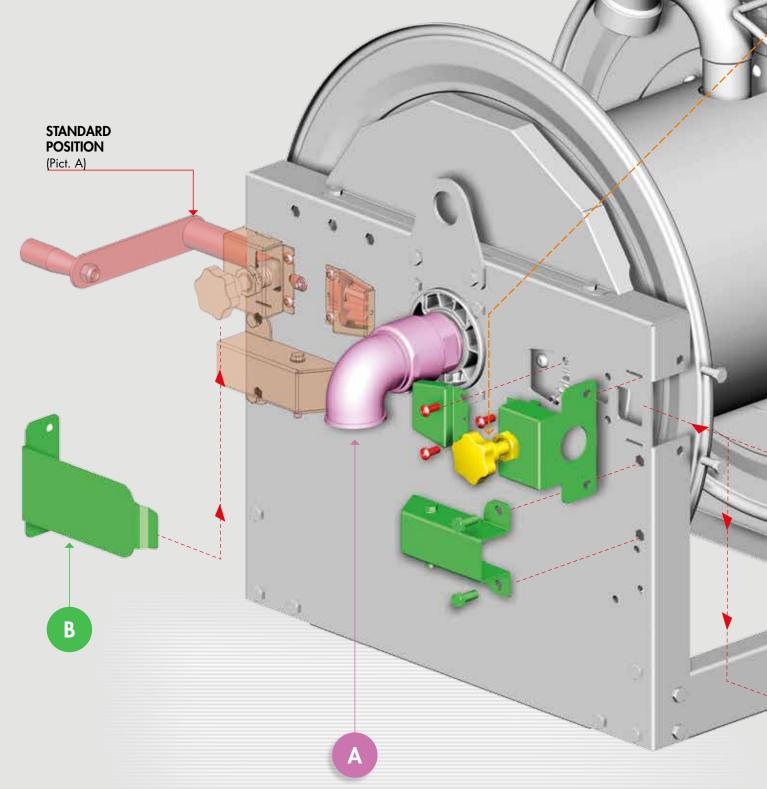
Series 700

Technical characteristics



SHIFTING THE HANDLE WITH CLUTCH

If required by hose reel use, the handle and clutch can be shifted from the standard position (Pict. A) indicated above, to the position shown in the figure opposite (Pict. B), by means of two simple operations.





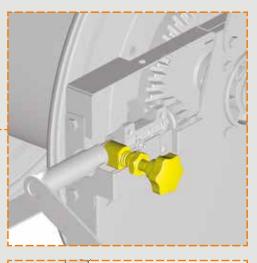
SWIVEL JOINT

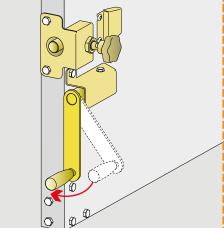
Designed with the ideal internal dimensions to guarantee the most possible flow. It is realized in galvanized steel or aluminium with seals in Viton®.



POSITION OF HANDLE WITH CLUTH

The clutch is indispensable for regulating the hose unwinding speed and preventing the drum from turning empty due to inertia. The hose reel comes with the winding handle and clutch in the standard position (Pict. A).





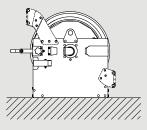
CLUTCH IN POM

The clutch in POM, which acts on the handle (to be used only during unwinding), creates the necessary friction on the pinion, for regulating hose unwinding speed.

The practical handle, connected to the external rack allows easy winding of the hose at the same time controlling its positioning on the drum.

There is also an easy allocation where the handle can be stored during the un-winding operation.

BENCH AND/OR FLOOR APPLICATION



Installation is a very important operation for the safe use of the hose reel, thus we recommend following the installation procedure included in the instruction manual.

NEW

(Pict. B)

POSITION



MANUAL

The manual hose reels Series 700, is able to combine the strength of a product suitable for winding hoses up to 2" with the easiness of winding them utilizing a handle.



Convenience and capacity for hoses up to 2"



In accordance with directive Atex 94/9 II 3GD c TX



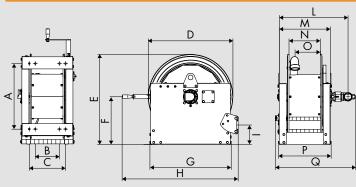
Note: All the hose reels in the table are without hose

Fluid - Pressure	width	width	width	width	Connection		
	270 mm	410 mm	550 mm	690 mm	inlet	outlet	
Air - Water Diesel fuel 20 bar - aluminium swivel joint - Viton [®] seals	721001/10	001/10 741001/10 751001/10		771001/10	F 2″ G	F 2″ G	
Oil and similar 100 bar - galvanized steel swivel joint - Viton ® seals	721001/40	741001/40	751001/40	771001/40	F 2″ G	F 2″ G	

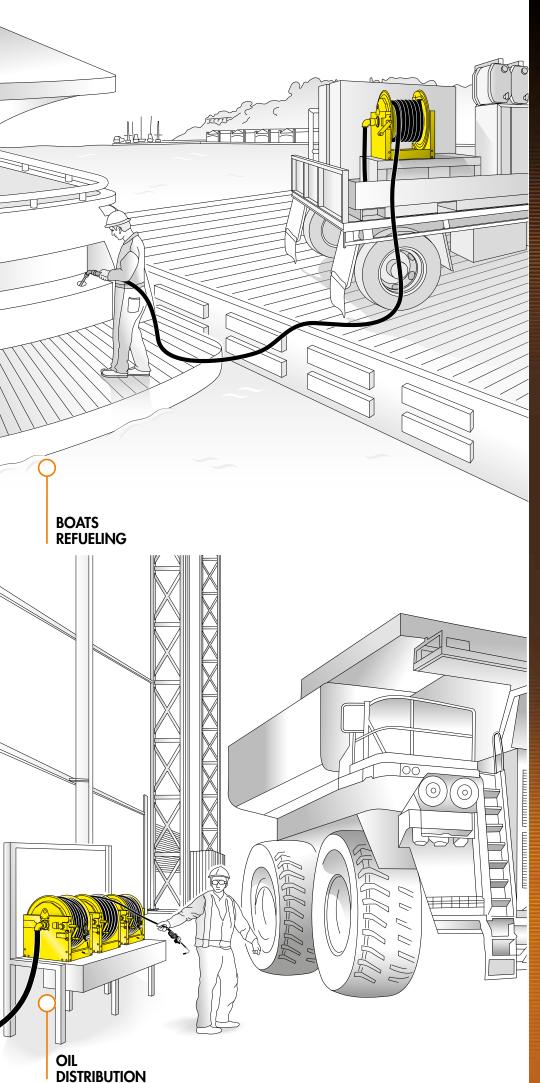
Note: for special fluids see the compatibility table at page 26

Hose reel capacity

ø hose exter	rnal	270 mm	410 mm	550 mm	690 mm
3/8″	17 mm	160 m	300 m	410 m	530 m
1/2″	20 mm	115 m	220 m	300 m	410 m
3/4″	27 mm	70 m	130 m	190 m	240 m
1″	34 mm	30 m	65 m	100 m	130 m
1.1/4″	42 mm	20 m	45 m	65 m	85 m
1.1/2″	50 mm	15 m	40 m	55 m	75 m
2″	63 mm	10 m	20 m	35 m	45 m



P/N	Α	В	С	D	E	F	G	Н	I	L	М	Ν	0	Р	Q	🏹 1-m ³	🗳 Kg
270 mm	542	200	300	700	760	410	672	920	160	570	422	260	210	435	640	0,53	85
410 mm	542	340	440	700	760	410	672	920	160	712	562	398	350	575	735	0,63	96
550 mm	542	480	580	700	760	410	672	920	160	850	705	538	490	717	875	0,73	103
690 mm	542	620	720	700	760	410	672	920	160	990	842	680	630	855	1060	0,82	119



Application fields

The maximized capacity offered by the hose reels Series 700 manual makes them suitable for work applications that require expansive lengths like **boats refuleling in ports or oil distribution in large construction sites.** Furthermore, these hose reels can also be

- utilized in:
- heavy industry
- mine
- offshore platforms
- airports
- naval shipyards
- ...and many more

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Accessories Series 430-530-540-560

quick fit wall brackets supplied on request





P/N 430/01

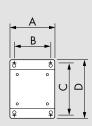
P/N 430/02





P/N 530/02

Fixed support in steel for fixed hose reels in painted steel P/N 430/01 series 430 - 4430 ABS Fixed support in AISI 304 stainless steel P/N 430/02 for fixed hose reels in stainless steel and Aisi 304 series 430 - 4430 ABS



P/N 530/01	Fixed support in steel for fixed hose reels in painted steel series 530	
P/N 530/02	Fixed support in AISI 304 stainless steel for fixed hose reels in stainless steel and Aisi 304 series 530	

Fixed support in steel

and Aisi 304 series 540

Aisi 304 series 560

P/N 540/01

P/N 540/02

P/N 560/02

P/N	Α	В	С	D
430/01	186	152	264	294
430/02	186	152	264	294
530/01	203	160	302	338
530/02	203	160	302	338

O

P/N 540/01

P/N 560/01



P/N 560/02

support in steel red hose reels in painted steel series 560
support in steel

for fixed hose reels in stainless steel and

for fixed hose reels in painted steel series 540

Fixed support in AISI 304 stainless steel

for fixed hose reels in stainless steel

P/N	Α	В	С	D
540/01	300	220	300	340
540/02	300	220	300	340
560/01	488	399	313	347
560/02	488	399	313	347



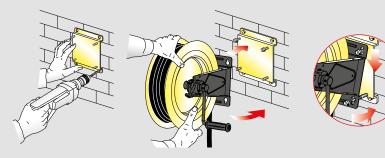






AISI 304 stainless steel rotation lock for painted P/N 0E74301 steel hose reel and AISI 304 stainless steel series 430 - 4430 ABS - 530 - 540 - 560

The quick coupling support that facilitates hooking of the single hose reel and optimises its installation in battery (i.e. with several hose reels side by side) is available by request.











Accessories Series 700

on request

Manual operation hose guide, high

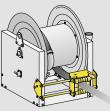
P/N 0E77/22775B	for width 270 mm
P/N 0E77/24175B	for width 410 mm
P/N 0E77/25575B	for width 550 mm
P/N 0E77/26975B	for width 690 mm

Using the special knob, the operator shifts the hose to the right or left to ensure its correct rewinding.

Manual operation hose guide, low

P/N 0E77/22775	for width 270 mm
P/N 0E77/24175	for width 410 mm
P/N 0E77/25575	for width 550 mm
P/N 0E77/26975	for width 690 mm





Using the special knob, the operator shifts the hose to the right or left to ensure its correct rewinding.

Hose guide standard closed, high

P/N 0E77/12775B	for width 270 mm
P/N 0E77/14175B	for width 410 mm
P/N 0E77/15575B	for width 550 mm
P/N 0E77/16975B	for width 690 mm

Hose guide with rollers that ensure easy sliding of the hose during unwinding and rewinding.

Hose guide standard closed, low

P/N 0E77/12775	for width 270 mm
P/N 0E77/14175	for width 410 mm
P/N 0E77/15575	for width 550 mm
P/N 0E77/16975	for width 690 mm

Hose guide with rollers that ensure easy sliding of the hose during unwinding and rewinding.

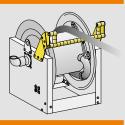
Hose guide standard open, high

P/N 0E77/32775B	for width 270 mm
P/N 0E77/34175B	for width 410 mm
P/N 0E77/35575B	for width 550 mm
P/N 0E77/36975B	for width 690 mm

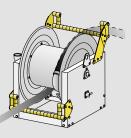
Hose guide standard open, low

P/N 0E77/32775	for width 270 mm
P/N 0E77/34175	for width 410 mm
P/N 0E77/35575	for width 550 mm
P/N 0E77/36975	for width 690 mm









Hose guide, standard open high or low.

This type of hose guide enables fitting of both versions (high and low) on the same hose reel, allowing hose unwinding in two opposite directions.



The information given in the following tables was obtained from various sources which, for competence and technical knowledge, we deem reliable. These data is not the result of tests carried out by us, but should be regarded only as a guide to be used for determining the suitability of the various pump parts in contact with the fluid.

ECODORA declines all liability for any inaccuracies contained in the following tables due to printing, transcription or appraisal errors and, in case of no previous experience confirming suitability, recommends the practical testing of the materials that will come into contact with the fluids to be pumped.

				Mate	erials			
Fluids	Galvanized steel	AISI 304 stainless steel	AISI 316 stainless steel	Brass	Polyurethane	Viton [®]	Teflon®	NBR
Acetate solvent	-	А	А	-	D	D	А	D
Acetic acid	A	А	А	D	С	С	А	С
Acetic acid, glacial	А	А	-	D	С	D	А	D
Acetone	А	А	А	D	D	D	А	D
Acetyl chloride (dry)	-	В	В	В	D	В	А	D
Acetylene	A	A	А	-	D	А	A	А
Adipic acid	-	В	В	-	-	А	A	В
Alcohols: ethyl	A	A	А	В	D	А	A	А
Alcohols: methyl	A	A	А	-	D	D	A	А
Ammonia (10%)	-	-	А	D	D	D	A	А
Ammonia, anhydrous	-	-	A2	D	D	D	A	В
Ammonia, liquid	-	-	A2	D	В	D	A	В
Ammonium bifluoride	-	-	А	-	-	А	А	А
Ammonium carbonate	В	В	А	-	-	В	A	D
Ammonium chloride	D	С	С	D	A	А	А	А
Ammonium hyposulfite	-	A	А	D	-	-	А	А
Ammonium nitrate	D	A	А	-	D	-	-	А
Ammonium oxalate	A	А	А	-	-	-	А	А
Ammonium persulfate	A	А	А	-	D	А	А	D
Ammonium phosphate dibasic	-	-	А	D	-	А	А	А
Ammonium phosphate monobasic	A	-	А	D	-	А	А	А
Ammonium phosphate tribasic	A	-	А	D	-	А	А	А

A) excellent compatibility

B good compatibility

C poor compatibility, not recommended **D** ho compatibility, not recommended

1) satisfactory up to 22°C 2 satisfactory up to 48°C

-) not available

				Mate	erials			
Fluids	Galvanized steel	AISI 304 stainless steel	AISI 316 stainless steel	Brass	Polyurethane	Viton®	Teflon®	NBR
Ammonium sulfate	С	А	А	D	А	D	А	А
Animal oil	-	-	А	А	-	А	А	А
Antifreeze	А	А	А	А	-	А	А	А
Aqua regia (80% hci, 20% hno3)	-	-	D	-	D	С	А	D
Aromatic hydrocarbons	-	A	А	-	D	А	А	D
Arsenic acid	D	A	А	D	С	А	А	А
Benzene	D	A	А	А	D	А	А	D
Benzoic acid	-	В	А	В	D	А	А	D
Bitume	D	-	А	-	D	А	А	D
Bleach	D	А	В	D	D	А	А	D
Bleach solution	-	-	-	-	-	А	А	D
Boric acid	-	А	А	D	А	А	А	А
Brake fluid	A	А	А	А	D	D	A	D
Bromidie acid 100%	D	D	D	D	D	-	А	D
Butane	-	А	A2	-	А	А	А	А
Butanol	-	А	A1	-	D	А	A2	А
Butyric acid	-	В	А	-	-	-	A	D
Calcium bisulfide	-	В	В	-	А	А	-	А
Calcium carbonate	-	А	А	D	-	А	A	А
Calcium chloride	-	С	С	D	A	А	A	А
Calcium hydroxide	-	А	А	С	A	А	А	А
Calcium hypochlorite	-	А	А	С	D	А	А	В
Calcium nitrate	-	В	В	-	A	А	А	А
Calcium sulfate	-	А	А	-	-	А	А	А
Carbolic acid (phenol)	-	А	А	С	С	А	А	D
Carbonic acid	-	В	В	С	A	А	А	В
Chlorine (anhydrous liquid)	-	D	В	-	-	А	А	D
Chlorine (dry)	-	D	D	-	D	А	А	С
Chloroacetic acid	-	-	-	-	-	D	-	-
Chlorobenzene	С	В	А	В	D	А	А	D
Chlorobromomethane	-	В	В	-	D	А	А	D

A) excellent compatibility

B good compatibility

C poor compatibility, not recommended **D** ho compatibility, not recommended

1) satisfactory up to 22°C 2 satisfactory up to 48°C

-) not available



	Materials							
Fluids	Galvanized steel	AISI 304 stainless steel	AISI 316 stainless steel	Brass	Polyurethane	Viton®	Teflon®	NBR
Chlorosulfonic acid	D	D	D	D	D	D	A	D
Chromic acid 5%	-	A	A	А	D	А	А	D
Chromic acid 50%	-	В	В	D	D	А	А	D
Citric acid	D	А	A2	D	A	А	А	А
Copper chloride	-	D	D	D	A	А	А	А
Copper nitrate	-	А	А	-	-	А	А	А
Cresylic acid	-	А	А	-	D	А	А	D
Deionized water	-	-	A2	-	-	A1	A2	A1
Diesel fuel	А	A	А	А	В	А	А	А
Dyes	-	-	А	-	-	А	-	-
Engine oil	А	А	A2	А	A	А	А	А
Ethyl acetate	С	А	А	А	D	D	А	D
Ethyl chloride	D	А	А	-	С	А	А	А
Ethyl sulfate	-	D	D	-	-	А	A	А
Fatty acids	-	-	А	-	-	А	А	В
Ferric chloride	-	D	D	D	D	А	A	В
Ferrous chloride	-	D	D	D	D	А	A	А
Fluoboric acid	-	В	В	D	-	А	A	В
Fluosilicic acid	-	В	В	D	В	А	A	А
Fluosilicidric acid 20%	-	D	D	D	В	А	A	В
Formic acid	D	A	А	D	D	В	A	D
Freon 113	-	А	А	-	В	С	A	А
Freon 12	-	А	А	А	A	А	A	А
Freon 22	-	А	А	-	D	D	A	D
Freon tf	-	А	А	-	A	-	А	А
Fresh water	D	А	А	В	A	В	А	А
Fuel oil	-	-	А	В	В	А	А	А
Gallic acid	D	В	В	-	D	А	A	D
Gasoline (high-aromatic)	А	А	А	А	D	А	А	С
Gasoline, leaded	А	А	A2	А	С	А	А	A2
Gasoline, uleaded	A	А	A2	А	D	А	А	А

A) excellent compatibility

B) good compatibility

C) poor compatibility, not recommended D) no compatibility, not recommended 1) satisfactory up to 22°C
) not available
2) satisfactory up to 48°C

				Mate	erials			
Fluids	Galvanized steel	AISI 304 stainless steel	AISI 316 stainless steel	Brass	Polyurethane	Viton®	Teflon®	NBR
Glue (p.V.A.)	А	А	A2	-	A	А	А	D
Glycerin	-	А	А	А	A	А	А	А
Glycolic acid	-	-	-	-	-	А	А	А
Grease	А	А	А	А	A	А	А	А
Hydraulic oil (petro)	А	А	А	А	A	А	А	А
Hydraulic oil (synthetic)	А	А	А	А	-	А	А	С
Hydrchloric acid (20%)	-	D	D	D	В	А	А	С
Hydrchloric Acid (37% cold)	-	D	D	D	С	А	А	С
Hydrchloric acid (37% - hot)	-	D	D	D	С	А	А	D
Hydrocianic acid	-	А	А	-	-	D	А	С
Hydrofluoric acid (concentrated)	-	D	D	D	D	А	А	D
Hydrofluoric acid 20%	-	D	D	D	-	А	А	D
Hydrofluoric acid 50%	-	D	D	D	D	А	А	D
Hydrofluoric acid 75%	-	D	D	D	-	А	А	D
Hydrogen (gas)	-	-	А	D	A	А	А	А
Hydrogen peroxide	D	А	А	D	С	А	А	В
Hydroxyacetic acid 70%	-	В	-	-	-	А	A	А
Ink	-	A	А	-	-	А	-	А
Isooctane	-	A	-	A	-	А	-	А
Jet fuel	А	A	А	А	С	А	A	А
Kerosene	A	A	А	А	С	А	A	А
Lactic acid	D	A	А	В	-	А	А	В
Latex	-	A	A2	-	-	А	A	А
Lime	-	-	А	-	-	А	A1	А
Linoleic acid	-	А	А	-	-	А	А	В
Magneium nitrate	-	А	А	-	-	А	А	А
Magnesium carbonate	-	А	А	-	-	-	А	А
Magnesium chloride	С	D	D	-	A	А	А	А
Magnesium hydroxide	В	А	А	В	А	А	А	В
Magnesium oxide	-	А	А	-	-	А	А	А
Magnesium sulfate	В	A	A	-	-	А	А	A

A) excellent compatibility

B good compatibility

C poor compatibility, not recommended **D** ho compatibility, not recommended

1) satisfactory up to 22°C 2 satisfactory up to 48°C

-) not available



	Materials								
Fluids	Galvanized steel	AISI 304 stainless steel	AISI 316 stainless steel	Brass	Polyurethane	Viton ®	Teflon®	NBR	
Maleic acid	В	A	A	D	-	А	A	D	
Malic acid	-	A	А	D	-	А	A	В	
Mercury	-	А	A	D	A	А	A	А	
Mercury chloride (dilute)	-	-	D	D	-	А	A	А	
Mercury cyanide	-	В	А	D	-	A1	А	А	
Methane	A	A	A	В	В	А	A	А	
Methanol	-	A	A	В	D	С	A	А	
Methyl acetone	A	A	A	-	D	D	A	D	
Methyl acrylate	-	A	-	В	-	D	A	D	
Methyl bromide	-	A	-	-	-	A	A	В	
Methyl chloride	-	A	A	-	D	А	A	D	
Methyl dichloride	-	-	-	-	D	А	A	D	
Methyl ethyl ketone	-	A	A	-	D	D	A	D	
Methyl methacrylate	-	A	-	-	-	D	A	D	
Mine ragia water	-	-	A	А	-	А	A	A	
Mine water	D	A	В	В	A	А	A	A	
Naphta	-	-	A	В	С	А	A	В	
Naphtalene	-	-	В	В	В	А	А	D	
Nitric acid (20%)	D	A	A	D	С	А	A	D	
Nitric acid (50%)	D	A	A	D	С	А	A	D	
Nitric acid (5-10%)	D	A	A	D	С	А	А	D	
Nitric acid (concentrated)	D	A	A	D	D	А	A	D	
Oils: diesel fuel (20,30,40,50)	-	-	А	В	-	А	А	A	
Oils: fuel (1,2,3,4,5,6)	-	-	A	В	-	В	А	В	
Oils: mineral	А	A	A	А	A	А	A	A	
Oils: transformer	A	A	A	-	-	А	A	A	
Oils: turbine	A	А	А	-	В	В	A	В	
Oleic acid	С	А	А	-	В	В	A	В	
Paint thinner	-	-	-	-	-	B1	A2	В	
Palmitic acid	-	A	A	D	A	А	A	A	
Perchloric acid	-	-	D	-	D	А	A	D	

A) excellent compatibility

B good compatibility

C) poor compatibility, not recommended **D**) no compatibility, not recommended

1) satisfactory up to 22°C
) not available
2) satisfactory up to 48°C

			Materials					
Fluids	Galvanized steel	AISI 304 stainless steel	AISI 316 stainless steel	Brass	Polyurethane	Viton®	Teflon®	NBR
Petroleum	-	А	А	А	-	A2	A2	A2
Petroleum jelly	-	А	А	-	-	А	С	А
Phosphoric acid (<40%)	-	В	А	D	В	А	А	D
Phosphoric acid (>40%)	-	В	В	D	С	А	А	D
Picric acid	-	D	D	D	В	А	А	В
Potassium bicarbonate	-	В	В	-	-	А	А	А
Potassium bromide	D	А	А	-	-	А	А	А
Potassium chlorate	-	А	А	-	-	А	А	А
Potassium chloride	В	С	С	D	A	А	А	А
Potassium chromate	-	В	В	-	-	А	А	A
Potassium cyanide solutions	В	А	А	D	A	А	А	А
Potassium dichromate	С	А	-	D	-	-	-	-
Potassium hydroxide (caustic potash)	-	А	A	-	В	D	А	В
Potassium nitrate	-	В	А	В	A	А	А	A
Potassium permanganate	-	В	В	-	-	А	А	А
Potassium sulfate	В	В	В	В	A	А	А	А
Propane (liquefied)	-	А	А	А	В	А	А	А
Pyrogallic acid	-	А	А	-	-	А	А	D
Rosin	D	А	A1	-	-	А	А	A2
Rust inhibitors	-	-	А	-	-	А	-	А
Salt water	-	С	С	А	A	А	А	А
Sea water	-	С	С	А	A	А	А	A2
Sewage (black water)	D	А	А	-	D	А	А	А
Shellac (bleached)	-	А	А	-	-	-	-	А
Shellac (orange)	-	-	А	-	-	-	-	А
Silicone	-	-	А	-	-	А	А	А
Soap solutions	-	А	A1	А	А	А	А	А
Soda ash (sodium carbonate)	-	-	А	D	-	А	А	A1
Sodium aluminate	С	А	А	-	-	А	А	А
Sodium bicarbonate	С	А	А	-	-	А	А	А
Sodium bisulfate	D	A	А	-	-	А	A	A

A) excellent compatibility

B good compatibility

C poor compatibility, not recommended **D** ho compatibility, not recommended

1) satisfactory up to 22°C 2 satisfactory up to 48°C

-) not available

31



	Materials								
Fluids	Galvanized steel	AISI 304 stginless steel	AISI 316 stainless steel	Brass	Polyurethane	Viton ®	Teflon®	NBR	
Sodium bisulfite	-	A	A	-	-	А	A	A	
Sodium carbonate	В	A	A	В	-	А	A	A	
Sodium chlorate	С	А	A	-	-	А	A	A	
Sodium chloride	С	С	С	D	A	А	А	A	
Sodium chromate	В	А	-	В	-	А	А	A	
Sodium cyanide	В	А	A	D	-	А	А	A	
Sodium hydroxide (20%)	-	А	A	-	В	А	A	A	
Sodium hydroxide (50%)	-	В	В	-	В	А	А	D	
Sodium hydroxide (80%)	-	D	D	-	В	В	A	D	
Sodium hypochlorite (<20%)	-	С	С	D	D	А	A	D	
Sodium metasilicate	С	А	А	-	-	А	А	A	
Sodium nitrate	В	А	А	-	-	А	А	С	
Sodium perborate	В	С	С	-	-	А	А	В	
Sodium peroxide	С	В	A	D	D	А	А	С	
Sodium silicate	В	В	A	-	-	А	А	A	
Sodium sulfate	В	А	A	-	А	А	А	A	
Sodium sulfide	В	А	А	D	А	А	А	А	
Sodium tetraborate	-	А	А	-	-	А	А	А	
Sodium thiosulfate	-	А	А	-	А	А	А	В	
Stannic chloride	D	D	D	D	В	А	А	А	
Starch	-	А	А	-	А	А	А	А	
Stoddard solvent	А	А	А	А	A	А	А	В	
Sulfuric acid (<10%)	-	С	С	D	D	А	А	D	
Sulfuric acid (10-75%)	-	С	С	D	D	А	А	D	
Sulfuric acid (75-100%)	-	С	В	D	D	А	A	D	
Sulfurous acid	D	В	В	D	D	D	А	D	
Tannic acid	С	А	А	В	A	А	А	А	
Tartaric acid	D	А	А	В	A	А	А	А	
Toluene	А	А	А	А	С	А	А	D	
Trichloroacetic acid	-	D	D	-	D	В	А	С	
Turpentine	В	А	А	В	D	А	А	А	

A) excellent compatibility

B good compatibility

C) poor compatibility, not recommended D) no compatibility, not recommended 1) satisfactory up to 22°C
n
2) satisfactory up to 48°C

Fluids	Materials								
	Galvanized steel	AISI 304 stainless steel	AISI 316 stainless steel	Brass	Polyurethane	Viton®	Teflon ®	NBR	
Urea	-	В	В	-	-	А	А	В	
Urine	-	-	-	-	-	A1	A1	A1	
Varnish	-	А	А	А	D	D	А	D	
Varnish	-	А	А	А	-	А	А	В	
Varnish (xylene based)	A	А	А	А	D	D	А	D	
Varnish diluted	-	А	А	А	D	В	А	А	
Varnish solvent	-	-	А	-	D	В	А	D	
Water, chlorine	-	-	С	-	-	А	А	D	
Weed killers	-	-	А	-	-	А	-	A	

A) excellent compatibility **B** good compatibility

C) poor compatibility, not recommended **D** ho compatibility, not recommended

1) satisfactory up to 22°C 2) satisfactory up to 48°C

-) not available

Applications with special fluids

Kind of fluid	Kind of hose reel
Antifreeze	Hose reel air-water 20 bar
Windshield washing liquid	Hose reel air-water 20 bar
Nitrogen	(At room temperature) for tyre inflation, industrial application, hose reel air-water 20 bar
Argon	Hoses with EN559 certification
Propane	Hoses with EN559 certification
Natural gas	Hoses with EN559 certification
Oxygen	Swivel joint with special grease not flammable (special hose for oxygen), ask our technical department for more information
Skydrol	EPDM seals needed and stainless steel passages, ask our technical department for more information