



2023

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NORHAM APPLICATION



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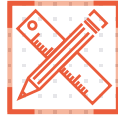
# EDITORIAL

## NOVELTIES

### BRAND NEW ICONS



PATENTED PRODUCT



TAILORED PRODUCTION

### DOCUMENTATION AT YOUR FINGERTIPS

Are you interested in one of our products and want to know more about it?

Find all our documentation via the QR Codes available on p. 20, or directly on our website!



## CERTIFICATIONS & QUALITY

### DEPUIS 1997

Certified ISO 9001, NORHAM is committed to a company policy that involves consistency in the seriousness and reliability of its services, designs and manufactures.



### CAMSTOPPER®

Certificate of "suitability for use" demonstrating the performance of our CAMSTOPPER® plugs.



*\*References under certifications, contact us.*

SALES SERVICE

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# COUPLINGS AND SEALS

## Flexible couplings

FLEXIBLE COUPLINGS

### → FLEXIBLE COUPLINGS WITH ANTI-SHEAR BAND

Multi-material flexible couplings have been designed to connect pipes of different diameters and materials. They can be installed above ground or underground and inside or outside buildings. They withstand temperatures between -40 °C to +140 °C and can accept angular deviation of up to 7.5° (depending on DN). Shear strength 25 x DN (for an SC200: 25 x 200 = 5000 N or 500 kg load).

### SC FLEXIBLE COUPLINGS

Standard multi-material couplings, with AISI 304 stainless steel anti-shear band and EPDM seal.

Options: NBR seal and anti-shearing strip stainless steel AISI 316, contact us.

TOX® = NO WELDING

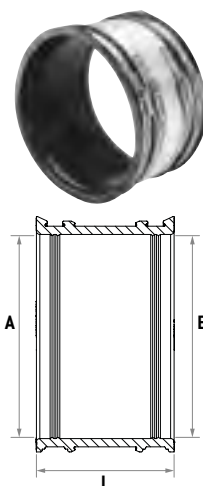
STAINLESS STEEL ANTI-SHEAR BAND



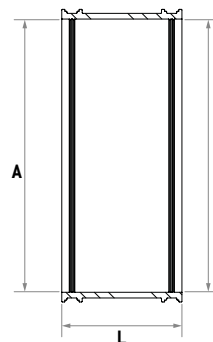
CLIP-IN : STAINLESS STEEL HOLDING PARTS

REF.	TOLERANCE		Δ MAX. (1)	L	WP
	A	B			
SC65	50-65	50-65	5	100	
SC75	65-75	65-75	5	100	
SC90	75-90	75-90	8	100	
SC100	85-100	85-100	8	100	
SC115	100-115	100-115	10	120	
SC120	105-120	105-120	10	120	
SC140	120-140	120-140	10	120	
SC150	130-150	130-150	10	120	
SC162	137-162	137-162	10	120	
SC175	150-175	150-175	10	120	
SC190	165-190	165-190	12	120	
SC200	175-200	175-200	12	150	
SC210	187-210	187-210	12	150	
SC225	200-225	200-225	12	150	
SC250	225-250	225-250	12	150	
SC275	250-275	250-275	12	150	
SC290	265-290	265-290	12	150	
SC310	285-310	285-310	15	190	
SC320	295-320	295-320	15	190	
SC335	310-335	310-335	15	190	
SC350	325-350	325-350	15	190	
SC360	335-360	335-360	15	190	
SC365	340-365	340-365	15	190	
SC385	355-385	355-385	15	190	
SC410	385-410	385-410	15	190	
SC430	400-430	400-430	15	190	
SC445	415-445	415-445	15	190	
SC465	435-465	435-465	15	190	
SC490	460-490	460-490	15	190	
SC495	465-495	465-495	15	190	
SC510	480-510	480-510	15	190	
SC525	495-525	495-525	15	190	
SC545	515-545	515-545	15	190	
SC550	525-550	525-550	15	190	
SC560	530-560	530-560	15	190	
SC570	545-570	545-570	15	190	
SC580	545-580	545-580	15	190	
SC585	550-585	550-585	15	190	
SC600	570-600	570-600	15	190	
SC620	590-620	590-620	15	190	
SC635	605-635	605-635	15	190	
SC645	615-645	615-645	15	190	

FROM SC65 TO SC290



SC310 AND ABOVE



1,0



COVERED REF.: CONTACT US

# COUPLINGS AND SEALS

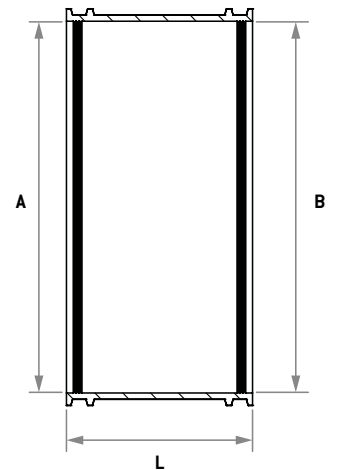
## Flexible couplings

### XL EXTRA LARGE FLEXIBLE COUPLINGS

Extra large multi-material couplings, with AISI 304 stainless steel anti-shear band and EPDM seal.

**Option:** AISI 316 stainless steel grade anti-shearing tape, contact us.

REF.	TOLERANCE		$\Delta$ MAX. <sup>(1)</sup>	L	WP
	A	B			
XL310	285-310	285-310	15	300	1,0 <sup>(2)</sup>
XL320	295-320	295-320			
XL335	310-335	310-335			
XL350	325-350	325-350			
XL365	340-365	340-365			
XL385	355-385	355-385			
XL410	385-410	385-410			
XL430	400-430	400-430			
XL445	415-445	415-445			
XL465	435-465	435-465			
XL495	465-495	465-495			
XL510	480-510	480-510			
XL525	495-525	495-525			
XL545	515-545	515-545			
XL550	520-550	520-550			
XL560	530-560	530-560			
XL570	545-570	545-570			
XL585	550-585	550-585			
XL600	570-600	570-600			
XL620	590-620	590-620			
XL635	605-635	605-635			
XL645	615-645	615-645			



<sup>(1)</sup> $\Delta$  = difference between the outside diameters of the pipes to be connected.  
 $\Delta > \Delta$  max, a BC compensation ring must be used in addition p.4.

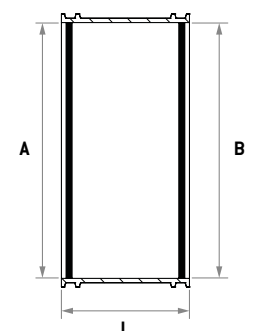
<sup>(2)</sup>Contact us.

### LC AND XLC LARGE DIAMETERS FLEXIBLE COUPLINGS

LC and XLC large diameter multi-material couplings with AISI 304 stainless steel anti-shear band, EPDM seal. Available in two widths: 190 mm (LC) and 300 mm (XLC).

**Option:** NBR (nitrile) seal, contact us.

REF.		TOLERANCE		$\Delta$ MAX. <sup>(1)</sup>	L	WP
LC	XLC	A	B			
LC Ø	XLC Ø	-	-	15	190 ou 300	up to 1 bar <sup>(3)</sup>
LC640	XLC640	645-640	645-640	15	190 ou 300	
LC645	XLC645	620-645	620-645	15	190 ou 300	
LC650	XLC650	625-655	625-655	15	190 ou 300	
↓	↓	↓	↓	15	190 ou 300	
↓	↓	↓	↓	15	190 ou 300	
LC2000	XLC2000	1975-2000	1975-2000	15	190 ou 300	



<sup>(3)</sup>For mounting on flexible pipes (corrugated HDPE type, for example) the tightening torque can be increased to 20-22 Nm instead of the 17 Nm specified on the fitting label.

# COUPLINGS AND SEALS

## Flexible couplings

FLEXIBLE COUPLINGS

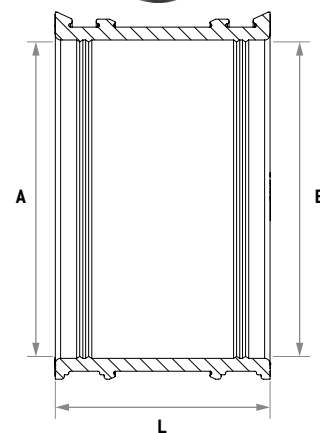
### DC FLEXIBLE COUPLINGS

EPDM body, end clamps in AISI 304 stainless steel.

REF.	TOLERANCE		L	WP
	A	B		
DC32	24-32	24-32	64	
DC40	32-40	32-40	64	
DC50	42-50	42-50	64	
DC65	50-65	50-65	100	
DC75	65-75	65-75	100	
DC90	75-90	75-90	100	
DC100	85-100	85-100	100	
DC115	100-115	100-115	120	
DC120	105-120	105-120	120	
DC140	120-140	120-140	120	
DC150	130-150	130-150	120	
DC162	137-162	137-162	120	
DC175	150-175	150-175	120	
DC190	165-190	165-190	120	
DC200	175-200	175-200	150	
DC210	185-210	185-210	150	
DC225	200-225	200-225	150	
DC250	225-250	225-250	150	
DC275	250-275	250-275	150	



0.6



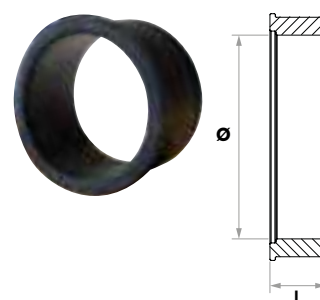
COVERED REF.: CONTACT US

### BC BUSHINGS

BC bushings (in EPDM) make possible to create tailor-made reductions in addition to multimaterial couplings and compensate for large differences in the diameter of the pipes to be connected.

To be used exclusively with NORHAM Flexible Couplings.

RÉF.	Ø	THICKNESS (L)
BC08	up to 2000 mm	08 mm to 48 mm
↓		
BC48		



<sup>(1)</sup> Every bushing is produced on measure.

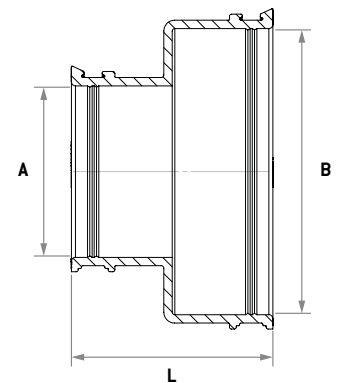
# COUPLINGS AND SEALS

## Flexible couplings

### AC FLEXIBLE COUPLINGS

EPDM body, end clamps in AISI 304 stainless steel.

REF.	OLD REF.	TOLERANCE		L	WP
		A	B		
AC032-040	AC0401	24-32	32-40	64	
AC032-050	AC110	24-32	40-50	64	
AC040-050	AC0502	32-40	40-50	64	
AC042-063	AC5622125	35-42	53-63	64	
AC064-090	AC5632	50-64	75-90	100	
AC064-115	AC5642	50-64	100-115	100	
AC090-115	AC5643	75-90	100-115	100	
AC090-137	AC0243	75-90	122-137	120	
AC095-125	AC1221	80-95	110-125	120	
AC095-136	AC1361	80-95	121-136	120	
AC115-125	AC5144	100-115	110-125	120	
AC115-136	AC1362	100-115	121-136	120	
AC115-145	AC5654	100-115	130-145	100	
AC115-152	AC0644	100-115	137-152	100	
AC115-170	AC5664	100-115	155-170	120	
AC115-182	AC5164	100-115	165-182	153	
AC115-200	AC0264	100-115	180-200	150	
AC125-136	AC4000	110-125	121-136	120	
AC125-145	AC1452	110-125	130-145	120	
AC125-160	AC1602	110-125	144-160	120	
AC125-170	AC1702	110-125	155-170	120	
AC125-193	AC1922	110-125	170-193	120	
AC125-210	AC2102	110-125	185-210	150	
AC125-235	AC2352	110-125	210-235	150	
AC136-160	AC1603	121-136	144-160	120	
AC136-193	AC1923	121-136	170-193	120	
AC136-235	AC2353	121-136	210-235	150	
AC145-170	AC1703	130-145	155-170	120	
AC145-200	AC2000	130-145	180-200	150	
AC145-210	AC2104	130-145	185-210	150	
AC145-235	AC5685	130-145	210-235	166	
AC160-193	AC1924	144-160	170-193	120	
AC160-210	AC2105	144-160	185-210	150	
AC160-235	AC2354	144-160	210-235	150	
AC160-265	AC2654	144-160	240-265	150	
AC168-257	AC0286	153-168	232-257	150	
AC170-200	AC2001	155-170	180-200	150	
AC170-222	AC5686	150-170	197-222	150	
AC175-280	AC56106	155-175	255-280	150	
AC180-200	AC6000	160-180	180-200	120	
AC193-235	AC2355	170-193	210-235	150	
AC193-265	AC2655	170-193	240-265	150	
AC200-300	AC0698	180-200	275-300	152	
AC205-335	AC3351	180-205	310-335	150	
AC215-235	AC2356	190-215	210-235	150	
AC215-265	AC2656	190-215	240-265	150	
AC215-290	AC2906	190-215	265-290	150	
AC222-257	AC0288	197-222	232-257	150	
AC222-275	AC56108	197-222	250-275	150	
AC235-265	AC2657	210-235	240-265	150	
AC235-290	AC2907	210-235	265-290	150	
AC235-320	AC3207	210-235	295-320	150	
AC265-290	AC2908	240-265	265-290	150	
AC265-320	AC3208	240-265	295-320	150	
AC275-325	AC5612	250-275	300-325	150	
AC290-320	AC3209	265-290	295-320	150	
AC320-360	AC3600	295-320	335-360	150	
AC325-375	AC0212	300-325	350-375	150	
AC325-385	AC3850	300-325	360-385	150	
AC335-375	AC0312	310-335	350-375	150	



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FLEXIBLE COUPLINGS



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# COUPLINGS AND SEALS

## T-Saddle for sewerage systems

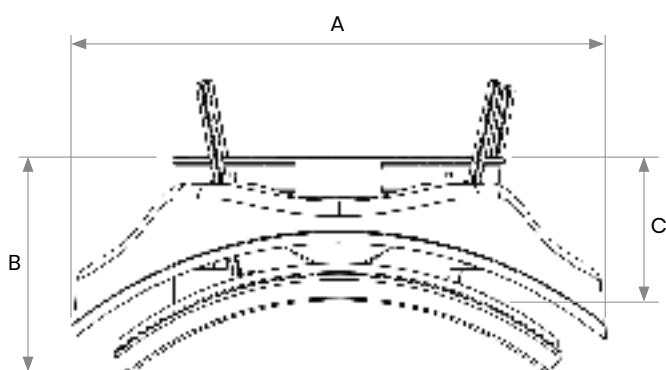


### T-SADDLE MULTI

#### MULTIMATERIAL T-SADDLE

T-saddles for all materials in EPDM, polyester and stainless steel AISI 304, for all types of main pipes.

REF.	LATERAL PIPE	MAIN PIPE DN	OUTSIDE Ø OF THE MAIN PIPE	EXIT ANGLE	A	B	C	WP
TFLEX250MULTI	225-250	400-800	400-970	90° ± 10°	452	180	120	0,5
TFLEX300MULTI	290-315	500-1200	500-1400		522	255	140	



T-SADDLE MULTI  
ON A CONCRETE PIPE



T-SADDLE MULTI  
ON A CORRUGATED PIPE

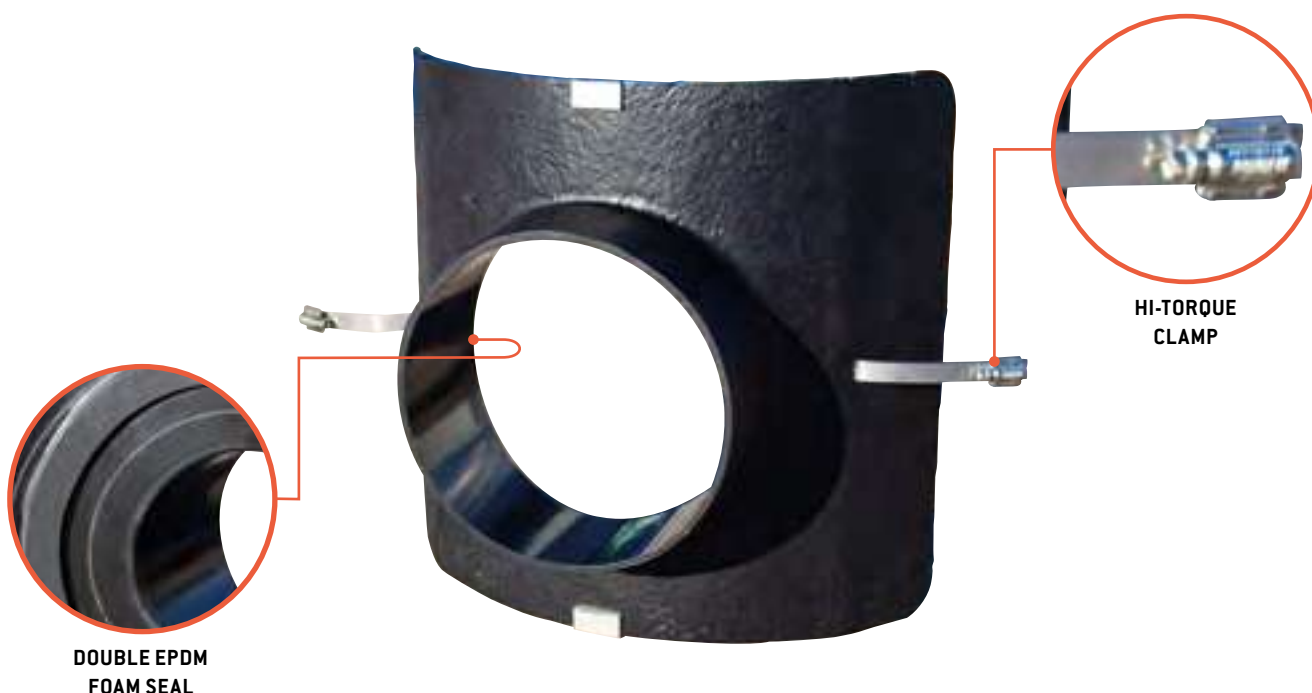


### CUSTOM T-SADDLE

#### MANUFACTURED ON MEASURE T-SADDLE

Multimaterial T-saddle in GRP conception and manufacturing tailor-made, tightening system in AISI 304 stainless steel (clamping band included).

T-saddle DN 200 to DN 400 for main pipes DN 400 to DN 2000.





# VALVES

## Professional non-return flap valves



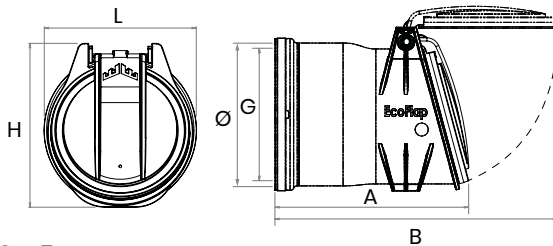
### DISCHARGE FLOOD PROTECTION VALVES

#### ECO-FLAP® N

Inclined flap valves, body in polyamid reinforced glass fiber (PA6-20GF), flaps in PP and TPE gaskets. It can be fitted to PVC pipes. For an all materials connection, there is the possibility to cut the collar off (G) and combine it with a flexible coupling (not supplied).

REF.	DN	Ø	A	B	G	H	L	WP
EF100N	100	100	149	216	109	125	116	1,0
EF110N	110	110	149	216	113	130	126	
EF125N	125	125	164	246	134	145	141	
EF150N	160	150	192	299	169	178	176	
EF200N	200	200	229	365	211	221	220	

Flexible coupling not provided.



ECO-FLAP® N

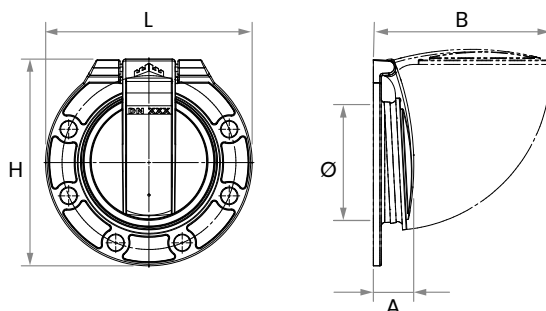


ECO-FLAP® N  
WITH A FLEXIBLE COUPLING

#### ECO-FLAP® B

Flap valves with straight leaf flange, in polyamid reinforced glass fiber body (PA6-20GF), EPDM gaskets. Can be fixed on a vertical wall (A4 fixings supplied) or on a standard flange (fixings not supplied). For a circular wall fixing, see adapter flange p. 7.

REF.	DN	Ø	A	B	H	L	WP
EF100B	100	110	45	188	225	220	1,0
EF150B	150	160	55	244	285	285	
EF200B	200	200	65	296	342	342	



ECO-FLAP®  
OPTION (EFXXXN AND EFXXXB) :  
STAINLESS EYE NUT, SEE BELOW

#### REMOTE HANDLING OPTIONS

REF.	DESCRIPTION
1 CABLE3M-316	1 Sling 3 m + 1 shackle, stainless steel 316, Ø 5 mm, 2 cable loops
CABLE6M-316	1 Sling 6 m + 1 shackle, stainless steel 316, Ø 5 mm, 2 cable loops
2 ÉCROU-ANNEAU8-316	Stainless steel AISI 316 (A4) eye nut



# VALVES

## Professional non-return flap valves

### → MULTITUBE

#### NON-RETURN POLYESTER FLAP VALVES

#### MULTI

End-line flap valves in isophthalic GRP, isophthalic gelcoat and EPDM seal EN 681-1 WC grade. Male-Male, into one another. Supplied with two flexible couplings for an all materials connection (PVC, HDPE, fiber cement, cast iron, clay, concrete, corrugated pipes, etc.).



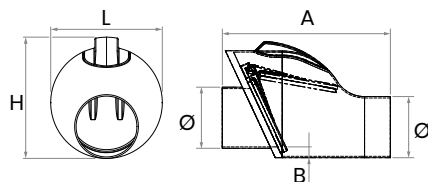
The external diameters of the pipes must be specified.

#### FOR PVC OR CAST IRON PIPES CONNECTIONS <sup>(1)</sup>

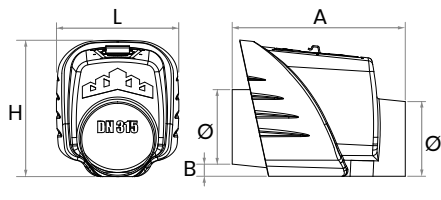
REF.	DN	Ø	A	B	H	L	WP
MULTI250-PFF	250	260	725	60	475	450	0,9
MULTI315-PFF	300	316	726	52	572	525	
MULTI400-PFF	400	410	900	25	595	610	
MULTI500-PFF	500	515	1230	40	725	700	

<sup>(1)</sup> For other pipes connections, please contact us.

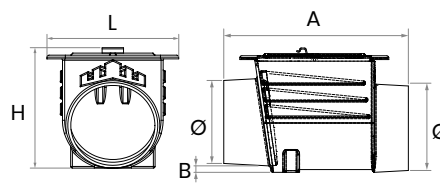
DN 250



DN 315



DN 400 AND DN 500



# V A L V E S

## Professional non-return flap valves

### MULTI NB

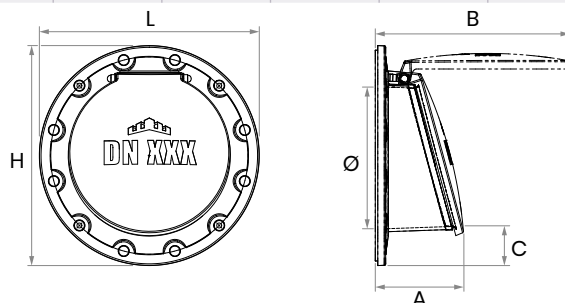
Inclined end-line flap valves with flange in isophtalic GRP, isophtalic gelcoat and EPDM seals. To fix on a vertical wall (AISI 316 stainless steel anchors provided) or on a flange ISO PN 10 (bolts and nuts not provided).

DN less than 200, see ECO-FLAP® valves p. 5. For a circular wall mounting, see adapter plate below.

#### DN 200 UP TO DN 600

For direct fixing to a ISO PN 10 flange or headwall.

REF.	DN	Ø	A	B	C	H	L	WP
MULTI200NB	200	180	150	276	73	343	343	1,0
MULTI250NB	250	243	160	332	67	395	395	
MULTI315NB	300	287	189	390	68	448	448	
MULTI400NB	400	369	206	482	86	570	570	
MULTI500NB	466	470	240	582	89	680	680	
MULTI600NB	529	599	280	712	78	791	791	

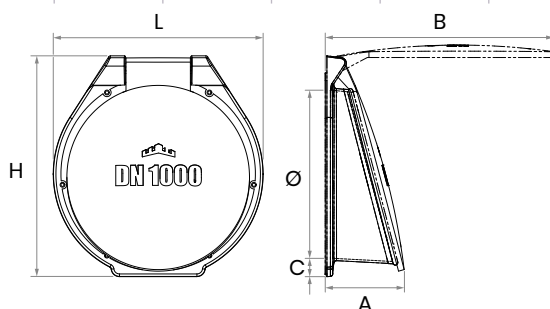


**MULTI NB OPTIONS:**  
DN 200 UP TO DN 600: STAINLESS  
EYE NUT, SEE P. 9.  
ISO PN10 DRILLING.

#### DN 800 UP TO DN 1500

For direct fixing to a ISO PN 10 flange (DN 800 up to DN 1000) or headwall (for all DN).

REF.	DN	Ø	A	B	C	H	L	WP
MULTI800NB	800	800	525	1112	110	1090	1035	1,0
MULTI1000NB	1000	1013	535	1390	110	1330	1265	
MULTI1200NB	1200	1200	695	1620	100	1521	1440	
MULTI1400NB	1400	1400	800	1820	100	1760	1640	
MULTI1500NB	1500	1500	870	1965	100	1855	1740	



**MULTI NB OPTIONS:**  
DN 800 UP TO DN 1000:  
ISO PN10 DRILLING.



### CIRCULAR MAHOLES ADAPTER PLATES

Adapter flanges for all multi MULTI NB and ECO-FLAP® flanges, to be installed on circular wall. Body in HDPE, EPDM gasket and AISI 316 stainless steel screws.

REF.	Ø MANHOLE <sup>(1)</sup>	DN
AR_V_B_100	600 up to 1600	100
AR_V_B_125	600 up to 1600	125
AR_V_B_150	600 up to 1600	150
AR_V_B_200	600 up to 1500	200
AR_V_B_250	800 up to 1500	250
AR_V_B_300	800 up to 1200	300
AR_V_B_400	800 up to 1200	400
AR_V_B_500-2	1500 up to 2000	500
AR_V_B_600-3	5000 up to 8000	600



**ADAPTER PLATE ONLY.**

<sup>(1)</sup>For other dimensions, please, contact us.

# VALVES

## Professional non-return flap valves

### MULTI N

Inclined end-line flap valves from DN 200 to DN 600 in isophthalic GRP, isophthalic gelcoat and EPDM seal. Male to be connected to any type of pipe (PVC, HDPE, fiber cement, cast iron, clay, concrete, corrugated pipes, etc.) with a flexible coupling (supplied).

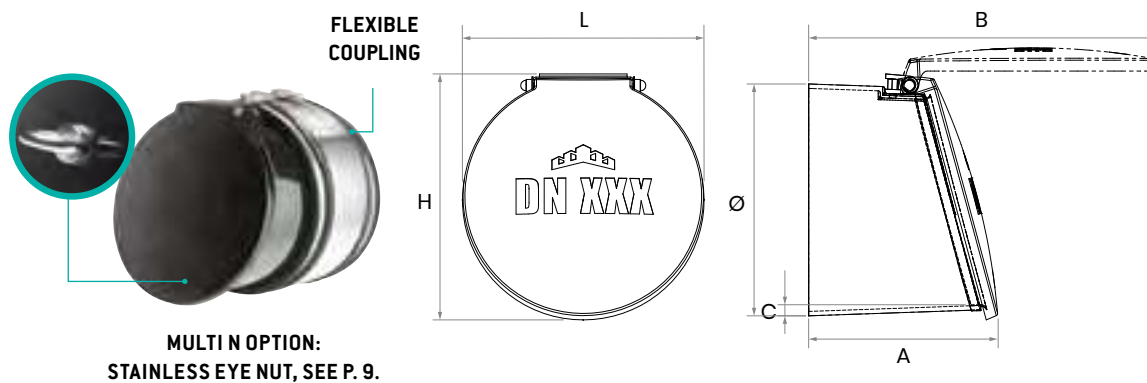


The external diameters of the pipes must be specified.

### FOR PVC OR CAST IRON PIPES CONNECTION <sup>(1)</sup>

REF.	DN	Ø	A	B	C	H	L	WP
MULTI-200-N-PFF	200	200	205	345	11	225	218	1,0
MULTI-250-N-PFF	250	263	223	399	12	285	280	
MULTI-315-N-PFF	300	315	266	480	15	344	335	
MULTI-400-N-PFF	400	405	283	550	16	435	424	
MULTI-500-N-PFF	500	500	320	665	17	535	530	
MULTI-600-N-PFF	600	630	348	790	18	667	665	

<sup>(1)</sup> For other pipes connections, please contact us.



### CIRCULAR MANHOLES ADAPTER PLATES

Adapter plates for all MULTI N valves, to be installed on circular wall. Isophthalic GRP body, EPDM gasket and AISI 316 stainless steel screws.

REF.	Ø MANHOLE <sup>(1)</sup>	DN
AR_V_N_200	600 up to 1500	200
AR_V_N_250	800 up to 1500	250
AR_V_N_300	800 up to 1200	300
AR_V_N_400	800 up to 1200	400

REF.	Ø MANHOLE <sup>(1)</sup>	DN
AR_1000_N_500	1000	500
AR_1000_N_600		600



**ADAPTER PLATE ONLY.**

<sup>(1)</sup>For other dimensions, please, contact us.

# VALVES

## Tank floor protection valves

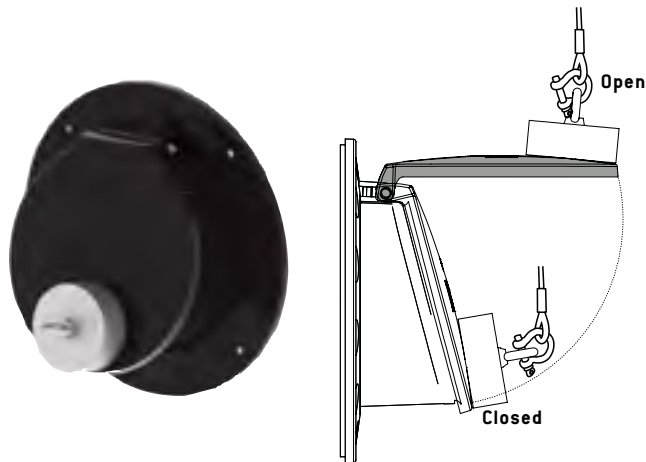


### SHUT-OFF VALVES

Valves in isophthalic GRP, isophthalic gelcoat and EPDM seal, fitted with overweight and an AISI 316 stainless steel ring nut. In normal position, the valve is kept open using a ring nut + cable / buckles (see accessories below).

#### FOR WALL MOUNTING

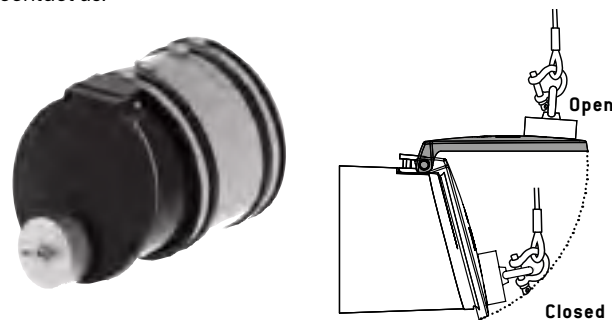
REF.	DN	INSTALLATION	WEIGHT
MULTI200NB-DE	200	Wall	0,76
MULTI250NB-DE	250		3,20
MULTI315NB-DE	300		4,50
MULTI400NB-DE	400		7,10
MULTI500NB-DE	500		12,00
MULTI600NB-DE	600		18,00



#### FOR PVC OR CAST IRON PIPES CONNECTIONS <sup>(1)</sup>

REF.	DN	WEIGHT
MULTI-250-N-PFF-DE	250	3,2
MULTI-315-N-PFF-DE	300	4,5
MULTI-400-N-PFF-DE	400	7,1
MULTI-500-N-PFF-DE	500	12,0
MULTI-600-N-PFF-DE	600	18,0

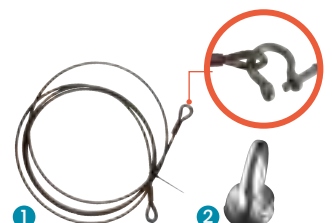
<sup>(1)</sup> For other pipes connections, please contact us.



### REMOTE HANDLING OPTIONS

#### FOR MULTI NB AND MULTI N

REF.	DESCRIPTION
1 CABLE3M-316	1 Sling 3 m + 1 shackle, stainless steel 316, Ø 5 mm, 2 cable loops
CABLE6M-316	1 Sling 6 m + 1 shackle, stainless steel 316, Ø 5 mm, 2 cable loops
2 ÉCROU-ANNEAU10-316	Stainless steel AISI 316 (A4) eye nut



# VALVES

## Tank floor protection valves



### FOR WATER TANKS AND STORM BASINS

Provides a preventive solution to avoid any mechanical damage to the basin during groundwater or gas rising when it is empty (or partially filled).

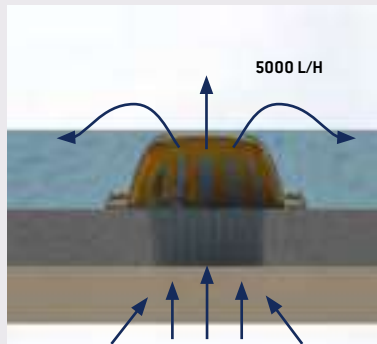
Homopolymer PP body with UV protection and EPDM membrane.

#### OPERATING MODE

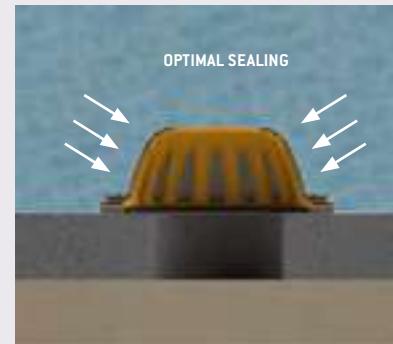
Protects buried structures from mechanical damages in the event of a rising water table or gases.



Phase 0 : empty basin.



Phase 1: rising ground water.



Phase 2 : basin filled up.

REF.	UTILISATION
FLO-PLUG200V2	Rigid floor device
FLO-PLUG200BV2	Device with adapter flange for flexible floors (geomembrane)



PATENTED OPENING FOR FLOWS UP TO 5000 L/H.



MECHANICAL ANCHORS SUPPLIED (AISI 316 STAINLESS STEEL).



For a geomembrane installation, an extension and a backfill are required. Consult our technical service for sizing.

## ACCESSORIES

### GEOMEMBRANE EXTENSIONS

REF.	UTILISATION
FLO-PLUGR300	300 mm <sup>(1)</sup> extension for FLO-PLUG200BV2.



EPDM SPLIT RING (PROVIDED WITH FLO-PLUG200BV2 FOR FLEXIBLE GEOMEMBRANES).

<sup>(1)</sup>For others dimensions, please, contact us.

PROTECTION VALVES

# V A L V E S

## Tank floor protection valves

### → FLOW RESTRICTORS BY NOZZLE VALVES

Positioned at the outlet of the control structure, on the retention side, the excess flow valve with a nozzle valve makes possible to contain the outgoing flow to a value defined according to the height of water upstream of the limiter.

**⚠ Water head and flow rate in l/s must be specified.**

Calculation of the nozzle diameter and definition of the references by the NORHAM technical service (contact us).

The AISI 304 stainless steel ring nut is included in the price of the valve.

Depending on the configuration of the installation, it is possible to create a nozzle valve with the following ranges, please, contact us.



ECO-FLAP® N  
VALVE LIMITER



ECO-FLAP® B  
VALVE LIMITER



MULTITUBE® MULTI N  
VALVE LIMITER



MULTITUBE® MULTI  
NB  
VALVE LIMITER

FLOW RESTRICTORS

PROTECTION VALVES

# VALVES

## Anti-odour valves for rainwater



### STINK-SHIELD®

#### ANTI-ODOUR SHIELD

STINK-SHIELD® devices stop the rise of odours, even in dry periods, from wastewater and sewerage pipeline through the storm water network (in the case of unit networks).

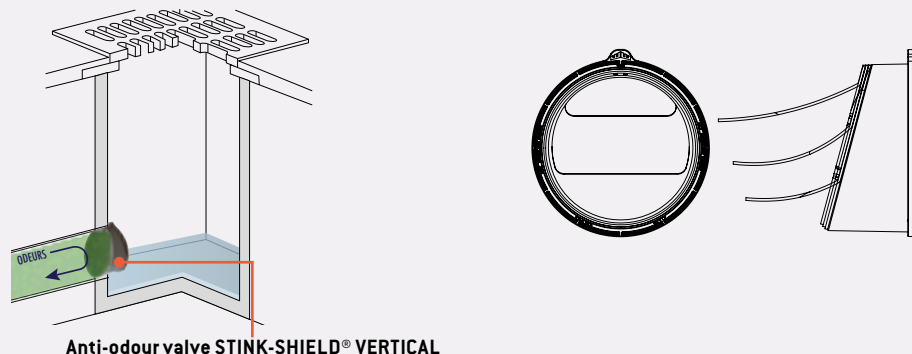
Elastomer type SEBS or EPDM body, AISI 316 stainless steel expansion collar (for DN 150 and above) and EPDM 60 Sh membranes.



### STINK-SHIELD® VERTICAL

#### OPERATING MODE

STINK-SHIELD® VERTICAL AND STINK-SHIELD® VERTICAL ANTI-RODENT



Installation on all types of rainwater collectors or manholes.

	REF.	DN <sup>(1)</sup>
1	SHIELD100V	100/110
	SHIELD125V	125
2	SHIELD150V	150
	SHIELD200V	200
	SHIELD250V	250
	SHIELD300V	300
	SHIELD400V-MULTI <sup>(2)</sup>	400
	SHIELD400V-PVC <sup>(3)</sup>	400



<sup>(1)</sup>Others DN, please, contact us. // <sup>(2)</sup>For pipe of DN = Ø int. = 400. // <sup>(3)</sup>For PVC pipe.

Supplied with removable rings or adhesive compensation strips to adapt to the internal diameters of the different pipes.



### STINK-SHIELD® VERTICAL ANTI-RODENT

Installation on all types of rainwater collectors or manholes.

	REF.	DN <sup>(1)</sup>
1	SHIELD100VAR	100/110
	SHIELD125VAR	125
2	SHIELD150VAR	150
	SHIELD200VAR	200
	SHIELD250VAR	250
	SHIELD300VAR	300
	SHIELD400VAR-MULTI <sup>(2)</sup>	400
	SHIELD400VAR-PVC <sup>(3)</sup>	400



<sup>(1)</sup>Others DN, please, contact us. // <sup>(2)</sup>For pipe of DN = Ø int. = 400. // <sup>(3)</sup>For PVC pipe.

Supplied with removable rings or adhesive compensation strips to adapt to the internal diameters of the different pipes.



# V A L V E S

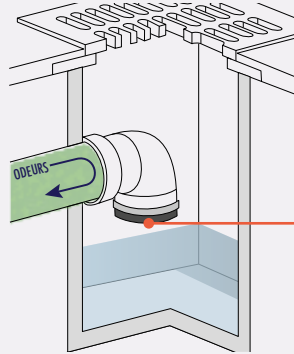
## Anti-odour valves for rainwater



### STINK-SHIELD® HORIZONTAL

#### OPERATING MODE

STINK-SHIELD® HORIZONTAL



Anti-odour valve STINK-SHIELD® HORIZONTAL

Installation in rainwater manholes, on new or existing networks, at the end of a PVC elbow.

REF.	Ø
SHIELD200	200



STINK-SHIELD®  
MOUNTED ON  
A PVC ELBOW  
(NOT SUPPLIED)

ANTI-ODOUR VALVES

# PLUGS



## MECHANICAL CAM PLUGS

Patented **CAMSTOPPER®** mechanical cam plugs are suitable for temporary or permanent closures. A cam handle locking system is provided, they can be installed quickly and easily. They can be safely installed from the manhole entrance using the handling rod (see accessories below).



## CAMSTOPPER® CAM

DN 100 up to DN 160, in nylon and glass fiber, CAMSTOPPER® CAM can be safely installed from the manhole entrance using the handling rod (see accessories below).

REF.	Ø INT.		BY-PASS (INCHES)	WP
	MINI.	MAXI.		
CAM090	90	97	1/2" BSP Male	0,5
CAM100	96	103		
CAM105	102	107		
CAM110	108	112		
CAM120	116	123		
CAM130	125	132		
CAM140	136	142		
CAM145	144	149		
CAM150	147	153		
CAM160	157	162		



## CAMSTOPPER® CAM V

DN 100 up to DN 160, in nylon and glass fiber, CAMSTOPPER® CAM V is provided with a locking system. It has been developed to equip wastewater management services to control the connections to their networks. It locks and unlocks only with its handling rod (see accessories below).

REF.	Ø INT.		BY-PASS (INCHES)	WP
	MINI.	MAXI.		
CAMV090	90	97	1/2" BSP Male	0,5
CAMV100	96	103		
CAMV105	102	107		
CAMV110	108	112		
CAMV120	116	123		
CAMV130	125	132		
CAMV140	136	142		
CAMV145	144	149		
CAMV150	147	153		
CAMV160	157	162		



**CAM V: LOCKABLE HANDLING WITH TELESCOPIC RALCAMV ONLY**

## ACCESSORIES

### HANDLING RODS FOR CAMSTOPPER® CAM AND CAM V

Telescopic rods for remote assembly and disassembly.

REF.	DESCRIPTION
① RALCAMV	Telescopic rod from 1500 mm to 3500 mm for CAM V
② RALCAM3323	Telescopic rod from 1500 mm to 3500 mm for CAM



## CAMSTOPPER® CAM PRO

From DN 200 up to DN 500, in cast aluminum.

REF.	Ø INT.		BY-PASS (INCHES)	WP
	MINI.	MAXI.		
PRO205W	185	210	1" BSP Male	0,5
PRO215W	195	220		0,5
PRO225W	205	235		0,5
PRO250W	220	250		0,5
PRO270W	240	270		0,5
PRO300W	280	310		0,5
PRO315W	293	323		0,5
PRO350W	325	350		0,3
PRO375W	352	382		0,3
PRO400W	375	400		0,3
PRO420W	400	425		0,3
PRO470W	449	474		0,3
PRO520W	496	521		0,3



## CAMSTOPPER® CAM PRO SPC TAILORED

Made to measure from DN 200 to DN 1400 in HDPE. For other references, please contact us.

REF.	Ø INT.		BY-PASS (INCHES)
	MINI.	MAXI.	
PRO190WSPC	165	190	1" BSP Male
PRO600WSPC	575	600	
↓	↓	↓	
↓	↓	↓	
PRO1400WSPC	1375	1400	



# DOCUMENTATIONS



## NORHAM DOCUMENTATION TO DOWNLOAD

### COUPLINGS AND SEALS



NORHAM FLEXIBLE COUPLINGS



NORHAM UNIVERSAL FLEXIBLE COUPLINGS



T-SADDLE



T-SADDLE MULTI

### PLUGS



CAMSTOPPER®

### VALVES



ECO-FLAP®



MULTITUBE



ADAPTATER PLATES



FLO-PLUG®



STINK-SHIELD®

# TERMS OF SALES

## 1) SCOPE

These Terms and Conditions of Sale apply in full to all sales made by NORHAM and for all its customers. They cancel and replace those previously issued.

These terms and conditions of sale have been established in accordance with the principle of transparency that governs the relationship between NORHAM and its customers and form an inseparable whole with the pricing conditions of NORHAM.

They constitute, pursuant to the provisions of Article L.441.6 of the French Commercial Code, the sole basis for business negotiations between the parties and the framework of the business relationship.

Except by NORHAM's prior and explicit agreement, any product order, regardless of its origin, implies adherence to these Terms and Conditions of Sale, which supersede any contrary clause that may appear in the conditions of purchase, contracts, documents or correspondence of the Customer.

It is expressly understood that NORHAM is not required to accept any terms of purchase or requests from the Customer that would be abusive or derogatory or exorbitant with regard to these Terms and Conditions of Sale.

In accordance with Article L.442-6 of the French Commercial Code, the Customer shall refrain from requiring from NORHAM the granting of conditions that create a significant imbalance in the rights and obligations that were agreed between the parties in their business agreement.

In this respect, any amendment modifying the annual contract can only be negotiated and accepted by NORHAM in any one of the following cases:

- the launch of a new product by NORHAM,
- a significant change in commercial policy,
- a proposal for a significant increase in the Customer's obligations.

In accordance with Article L.442-6 of the French Commercial Code, the Customer shall also refrain from requiring NORHAM to align its conditions with commercial conditions that the Customer considers more favourable and that may have been granted, in particular, to other customers.

## 2) PRICE LIST - INVOICING

Invoices are always drawn up according to prices in the NORHAM PRICE LIST in force on the day of the order, except for special provisions that have been the subject of a special prior agreement.

The NORHAM PRICE LIST is published and modified annually, on March 1st of each year.

The prices agreed between the customer and NORHAM are always the result of negotiation.

The price is expressed in euros, excluding taxes.

Depending on exceptional variations that may occur in raw materials or any other element used in the calculation of cost prices, NORHAM reserves the right, at any time during the fiscal year, to modify the prices, subject to two months' notice before the application of the new prices. However, NORHAM shall invoice the goods ordered at the prices indicated at the time of registration of the order.

## 3) ORDERS

The fact of placing an order implies for the Customer the acceptance of these terms and conditions.

All orders must be addressed to NORHAM's head office at the following address:

NORHAM S.A.S. - Z.A. DRUISIEUX - 26260 ST DONAT SUR L'HERBASSE  
- Tel 04 75 45 00 00 - Fax 04 75 45 17 05

The order must be in writing. The contract is only formed subject to the NORHAM's express acceptance of the order. Unless the Customer receives notice to the contrary in the form of an acknowledgement of receipt formalising the new conditions of acceptance, the order shall be deemed to have been accepted.

Any order expressly accepted by NORHAM will be deemed to entail acceptance by the Customer of the NORHAM's offer and the sale will be concluded.

Any order requiring individualised manufacturing may be subject to a request by NORHAM for a down payment. The order expresses the irrevocable consent of the Customer; the Customer cannot cancel the order, unless with the express prior agreement of NORHAM or to meet the conditions of Article 10 below under force majeure. In this case, the Customer shall indemnify NORHAM for all costs incurred (in particular specific equipment, design costs, labour and supply expenses, tools) and for all direct and indirect consequences resulting therefrom. In addition, any down payment made shall be retained by NORHAM.

## 4) DELIVERIES

### 4.1- Delivery lead times

Delivery lead times are given according to normal manufacturing possibilities in a normal economic context. They may be modified, in particular in the event of force majeure, strikes affecting the delivery of raw materials, incidents of civil unrest, etc.

Possible delays in delivery cannot be grounds for cancellation of the order or a claim for compensation.

In addition, in accordance with Notice No. 04/04 of the Trade Practices Review Commission of 7 July 2004 concerning certain clauses contained in purchase conditions, the Customer shall refrain from applying, in the event of late delivery, penalties for late delivery, the amount of which would constitute a disproportionate and brutal sanction. Consequently, no penalty will be accepted by NORHAM, except with the prior written agreement of the latter, regardless of the reason or the basis of the penalty.

### 4.2- Place and method of delivery

The items listed in the catalogue are shipped carriage paid for a delivery of 400 euros net (excluding VAT) or above, by courier exclusively for mainland France.

For any other means of transport or any other destination, a surplus will be invoiced to the Customer.  
NORHAM does not consign any stock to the Customer.

### 4.3 - Transfer of risk

The goods travel at the risk and peril of the recipient, even in the case of carriage paid shipment, and it is the responsibility of the recipient to fully notify the carrier of any reservations in accordance with Article 5 below.

Any dispute concerning quantities cannot be taken into consideration beyond a period of 8 days after delivery.

## 5) COMPLIANCE - RETURN OF GOODS

### 5.1 - Damage related to transport

Any reservation or dispute relating to shortages and/or damage related to the transport of the products must be made in writing on the transport document and countersigned by the carrier, then confirmed to the carrier by registered letter with acknowledgement of receipt within three clear days (Article L.133-3 of the French Commercial Code) in the case of domestic transport, or within twenty-one clear days in the case of international transport (Art.30 CMR Convention) with a copy of the transport document sent by registered letter with acknowledgement of receipt to NORHAM.

### 5.2 - Reservations related to the conformity of the products - Returns

The products marketed by NORHAM comply with the legislation and/or regulations and/or standards in force and are guaranteed against all manufacturing defects.

The information contained in the drawings, diagrams or plans in our catalogues or other documents are only indicative and are not binding on NORHAM.

The dimensional tolerances of the parts delivered in relation to the specifications contractually indicated are those generally accepted, in accordance with standard industry practice and the state-of-the-art.

Any reservation or dispute relating to the conformity of the products must be notified by registered letter with acknowledgement of receipt to NORHAM within eight days of receipt of the products.

The customer must prove the existence of defects, shortages or anomalies concerning the products.

No return will be accepted unless it has been expressly agreed in advance by NORHAM.

The non-conforming products must be returned within fifteen days from receipt of NORHAM's agreement.

Subject to NORHAM's agreement, returned products will be replaced by identical or similar products.

Similar products, i.e., substitutes for those ordered, are those of the same quality and satisfying the same operating functions.

In the absence of replacement, the return of products will result in their reimbursement by issuing a credit note.

Unless these conditions are observed, the products will be deemed to comply, and no refund of the price of the products or payment of any compensation whatsoever shall be due by NORHAM.

In accordance with Article L.442-6 of the French Commercial Code, the Customer shall refrain from refusing products or returning products without NORHAM having been able to verify the reality of the grievance submitted by the Customer.

### 5.3 - Reservations related to hidden defects

The machines and parts made by us are guaranteed against all construction defects for 2 years from the date of delivery, except for special parts (seals, plugs, etc.). NORHAM declines all liability in the event of damage resulting from improper use, incorrect assembly or normal wear and tear.

Our guarantee cannot commit us beyond the pure and simple replacement of a defective part.

Returned products will be replaced by identical or similar products.

Similar products, i.e., substitutes for those ordered, are those of the same quality and satisfying the same operating functions.

## 6) PAYMENT

### 6.1 - Payment period and terms of payment

Unless otherwise stipulated, invoices are payable at 60 days net, or 45 days at the end of the month of the date of issue of the invoice, by cheque, bank transfer or paper instrument.

Bills of exchange must be returned with the acceptance of the

Customer within ten days of receipt.

Under no circumstances may advance payments give rise to the granting of a discount; the early payment discount rate is 0%.

The Purchaser is in no way entitled to suspend or set off a payment for any reason whatsoever, and in particular, without this example being restrictive, in accordance with the provisions of Article L.442-6-1-8 of the French Commercial Code, when a dispute is in progress concerning an allegedly late or non-compliant delivery.

### 6.2 - Late payment

Any amount not paid by its due date will immediately and automatically lead to:

- the immediate payment of all sums remaining due,
- the cancellation of any current or future deliveries,
- the payment of interest on arrears based on the legal interest rate applied by the ECB to its most recent refinancing operation plus 10 percentage points. The interest will start to accrue from the date of payment shown on the invoice and will continue to accrue until the date of full payment of all sums due.

In addition, the Customer is automatically liable to pay NORHAM a lump sum compensation for collection costs, amounting to 40 euros. Where the recovery costs incurred exceed the amount of this lump sum compensation, NORHAM reserves the right to request additional compensation, on the basis of actual expenditure.

In case of payment by paper instrument, the failure to return the bill of exchange will be deemed a refusal of acceptance equivalent to a failure to pay.

Similarly, any compensation made by the Customer without the express prior consent of NORHAM will be deemed a failure to pay.

In case of total or partial non-payment of an order on the due date, the sums due because of this order or other orders already delivered or being delivered will be immediately payable after formal notice made by NORHAM by registered letter with acknowledgement of receipt.

In the case of instalments, ownership will be transferred as each instalment falls due.

### 6.3 - Services provided by the Customer

The amount of any down payment due by NORHAM to the Customer for services promoting the marketing of products and/or other obligations as referred to in Article L.441-7 of the French Commercial Code will be capped at the amount of the invoices sent to the Customer and actually collected by NORHAM.

Invoices for down payments may not give rise to any compensation whatsoever on the invoices for the sale of goods by NORHAM.

In any event, the due date of invoices issued by the Customer for services promoting the marketing of products and / or other obligations as referred to in Article L.441-7 of the French Commercial Code must comply with the period available to the Customer for payment to NORHAM, without infringing the provisions of Article L.441-6 of the French Commercial Code.

## 7) RETENTION OF TITLE CLAUSE

It is expressly agreed that NORHAM reserves ownership of the goods until full payment of the price of the goods delivered, this retention of title clause being in accordance with the legal and regulatory provisions in force and, as such, the provisions of Order No. 2006-346 of 23 March, 2006 'relating to liens'.

In the event of the Customer's compulsory receivership or liquidation of assets, the products may be claimed in accordance with the legal and/or regulatory provisions in force.

In the event that the goods are claimed, for partial or total non-payment, the products in stock will be deemed to correspond to the unpaid debts. Notwithstanding any clause to the contrary, this retention of title clause is enforceable against the Customer.

Notwithstanding this retention of title clause, all risks relating to the products sold shall be borne by the Customer as soon as the said products are accepted on delivery.

The Customer shall thus be held solely liable for all risks of deterioration, loss, partial or total destruction, whatever the cause of the damage, even if it is an unexpected event or force majeure.

The Customer shall inform any third party, particularly in cases of sequestration of property, of the fact that the products under the retention of title clause belong to NORHAM, and shall inform NORHAM immediately of any sequestration of property or similar operation.

The Customer shall have the goods subject to the present terms insured against loss and damage and shall inform NORHAM of any measures taken by third parties on the said goods.

In case of non-payment, the return of the goods may result either from a formal notice, an inventory from both parties, or a summons from a bailiff; the Customer cannot opt out of these procedures.

## 8) INTELLECTUAL PROPERTY RIGHTS - TRADEMARKS

The Customer acknowledges that NORHAM is the owner of all intellectual property rights covering the products sold to the Customer and that no right of use or reproduction of these rights is granted to it.

The Customer shall not alter the said intellectual property rights or to make improper use that would discredit or devalue them; the products delivered by NORHAM under the trademark "NORHAM" and/or any other trademark used by NORHAM can only be resold in their original presentation and under conditions consistent with their brand image.

In particular, the Customer shall use at all times the updated graphic charters for all creations (visuals, packaging, etc.) that it develops relating to NORHAM products.

## 9) TRADE DISPUTES

Any trade dispute on the part of the Customer relating to the entirety of the business relationship with NORHAM cannot be taken into account after the expiry of a period of nine months from the occurrence of the disputed event.

In addition, any claim relating in particular to the payment of sums (volume discounts, commercial cooperation and remuneration of other services) that would be due during the financial year N must imperatively reach NORHAM no later than September 30 of the financial year N+1.

Failing this, the claim shall de facto be inadmissible.

## 10) FORCE MAJEURE

The performance by the parties of all or part of their obligations will be suspended in the event of the occurrence of an unexpected event or force majeure that would hinder or delay performance.

The following are considered as such in particular, without this list being restrictive: terrorism, riots, insurrection, civil unrest, strikes of any kind, any malfunction of the company related to the occurrence of cases of illness of its employees or its service providers or suppliers and procurement problems of NORHAM.

However, this suspension does not apply to payment obligations.

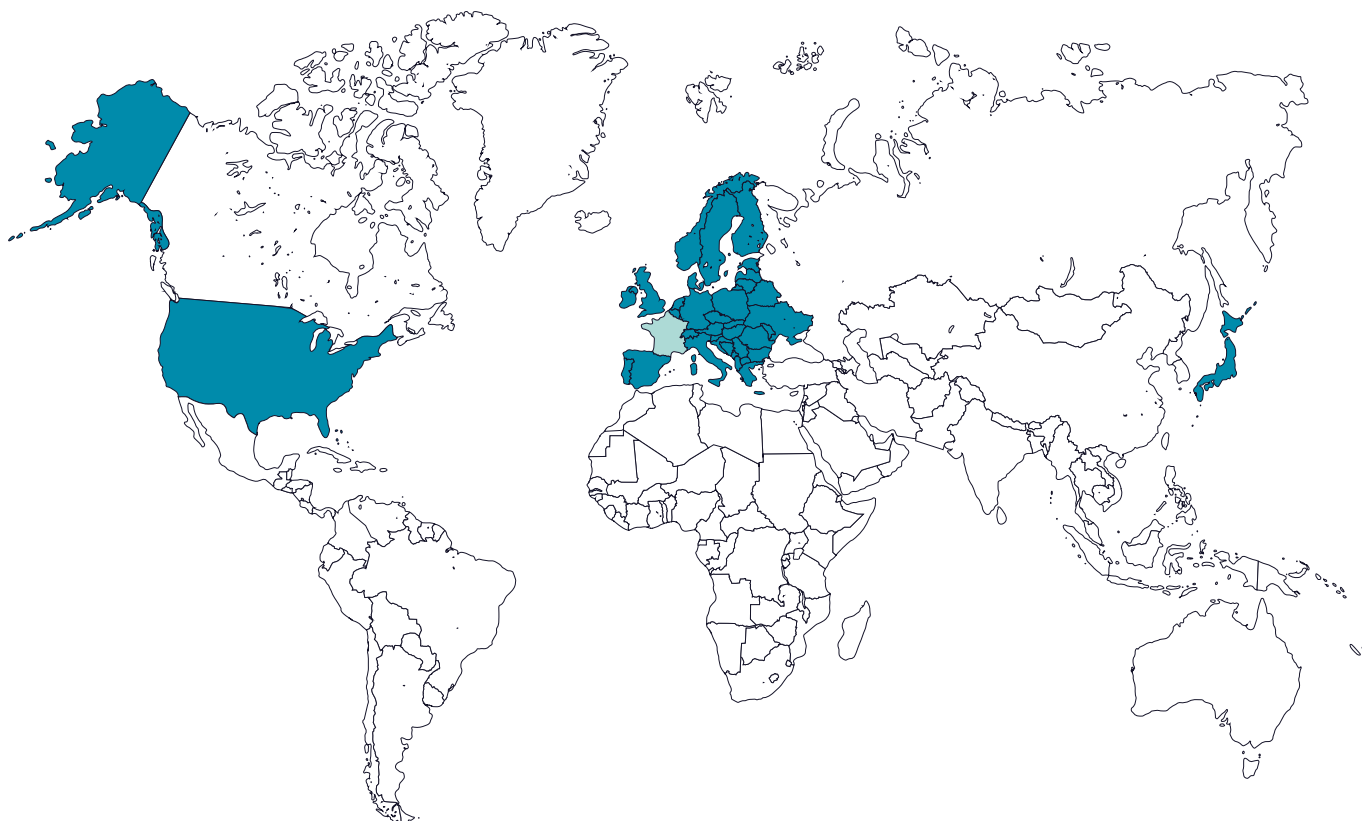
Should this suspension continue beyond a period of seven days, the other party will have the possibility to cancel the current order.

## 11) ASSIGNMENT OF JURISDICTION

The parties agree to do their utmost to resolve amicably any disagreements that may arise from the interpretation, performance or termination of business relations between NORHAM and the Customer.

Any dispute arising from the performance of the contractual relationship between NORHAM and the Customer, as well as the acts that will be the consequence, will be subject to the jurisdiction of the Commercial Court of the registered office of NORHAM notwithstanding any interlocutory application, any third-party claim or in case of multiple defendants.

# YOUR CONTACTS



■ Countries having NORHAM partners, please feel free to contact us if you want to deal with us.

SERVICE	CONTACT	TEL	@
<b>HEAD OFFICE</b>	Phone : +33 (0)4 75 45 00 00 // Fax : +33 (0)4 75 45 17 05		norham@norham.fr
<b>EXPORT</b>	Benoît FRANDON	+33 (0)4 75 45 47 88	b.frandon@norham.fr
<b>EXECUTIVE MANAGEMENT</b>	François MICHEL      President	+33 (0)4 75 45 00 00	f.michel@norham.fr
	Coralie VERGARA      Executive assistant	+33 (0)4 75 45 00 00	c.vergara@norham.fr



ZA DRUISIEUX - 130 RUE DES SAULES, 26260 SAINT DONAT SUR L'HERBASSE - FRANCE  
 TÉL : 33 (0) 4 75 45 00 00 - FAX : 33 (0) 4 75 45 17 05 / norham@norham.fr // www.norham.fr  
 RCS ROMANS B 352 602 114 - SIRET 352 602 114 00055. Effective from October 17th, 2023.