

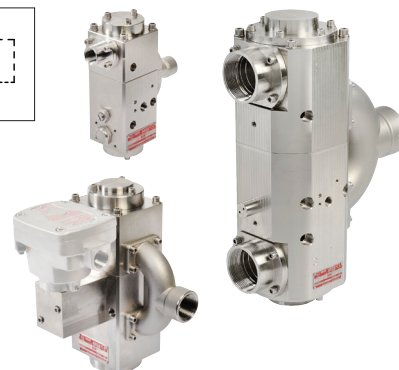
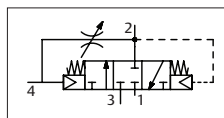
# ASCO™ Volume Boosters

for on-off control - 1/2, 1, 1 1/2 and 2

3/3  
SERIES  
300

## Features

- The Booster valves have a balanced piston construction providing very high flow
- IEC 61508 Functional Safety figures are available; SIL 3 capable
- Suitable for on-off and control e.g. for Partial Stroke Testing (PST)
- Very large ambient temperature range capability
- Low friction construction providing lowest sticking risk and highest life time
- Controllable by-pass screw for optimum controllability; control ratio 1:1
- Optional modular inlet and/or exhaust filters available
- Direct NAMUR mount of solenoid pilot valve
- Available in both anodised aluminium and 316L stainless steel
- For additional safety a protective cap option is available to prevent unauthorised adjustment of the dampening screw
- ATEX and CUTR certified; IP66/67
- Integrated mounting holes
- NACE compliant for the environment (stainless steel execution)
- Protective cap option to prevent unauthorised open action of the bypass screw



## General

Differential pressure 0 - 10 bar [1 bar = 100kPa]  
Maximum viscosity 65cST (mm<sup>2</sup>/s)  
Response times 75 - 100 ms

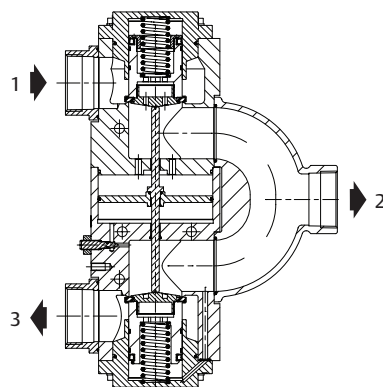
fluids (*)	temperature range (TS)	seal material (*)
air, inert gas	-20 to +90°C	FPM (fluorelastomer)
	-60 to +60°C	PUR (polyurethane), FEP (fluorinated ethylene propylene), (F)VMQ (fluorosilicone) <sup>(1)</sup>

## Materials in contact with fluid

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

	Stainless steel body	Aluminium body
Body	AISI 316L SS	Aluminium, hard anodised
Stem	Stainless steel	Stainless steel
Springs	Stainless steel	Stainless steel
Sealings & poppets	FPM / PUR, FEP, (F)VMQ <sup>(1)</sup>	FPM / PUR, FEP, (F)VMQ <sup>(1)</sup>

<sup>(1)</sup> PUR for static seals; FEP and (F)VMQ for dynamic seals



## Specifications

pipe size	orifice size	flow coefficient Kv / Cv			operating pressure differential (bar)		basic catalogue number <sup>(2)</sup>	
					min. <sup>(3)</sup>	max. (PS)		
						air/gas (*)		
❖ (mm)	(m <sup>3</sup> /h) (l/m)	Cv		~/=	aluminium	stainless steel		
<b>3/3 volume booster</b>								
1/2	16	4,0	63	4,6	0,3	10	❖ 330A4A000	❖ 330A4S000
1	28	11	183	12,7	0,3	10	❖ 330A6A000	❖ 330A6S000
1 1/2	57	41	683	47	0,3	10	<sup>(4)</sup>	❖ 330A8S000
2	57	49	817	57	0,3	10	<sup>(4)</sup>	❖ 330A9S000

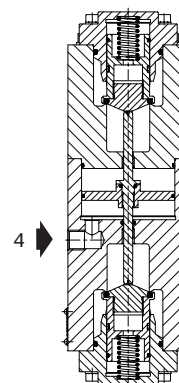
❖ Select 8 for NPT ANSI 1.20.3 or Select G for ISO G(228/1)

<sup>(2)</sup> See page 2 for complete catalogue numbers build up

<sup>(3)</sup> On-off : Minimum pilot pressure: 2 bar

Control : Outlet pressure = Pilot pressure (2-10 bar)

<sup>(4)</sup> Aluminium on request



## Installation

- Multi language installation/maintenance instructions are included with each valve
- The booster valves can be mounted in any position without affecting operation
- Mounting holes are provided in the valve body
- Threaded pipe connection identifier is 8 = ANPT (ANSI 1.20.3); G = G (ISO 228/1)
- NAMUR interface for direct mount of NAMUR pilot valves
- Declarations of conformity are available on request
- For suitable pilot valves use ASCO 327 series with NAMUR interface and TPL 27121
- To comply with IEC 61508 (SIL) the valves must be provided with a specific exhaust protector (as shown on page 3) or equal

Product selection guide

**PRODUCT CODE**  
8 330 A 6 S 0 0 0 A00 00

**Connection type**  
8 = NPT body connections  
G = BSP body connections  
(ISO 228 standard)

**Product series**  
330

**Revision**  
A

**Port size**  
4 = 1/2" thread  
6 = 1" thread  
8 = 1 1/2" thread  
9 = 2" thread

**Body material**  
A = Aluminium, hard anodised  
S = AISI 316L stainless steel  
\* For 1 1/2 and 2" aluminium on request

**Voltage**  
00 = No voltage

**Options**  
A00 = No option (FPM seals -20°C to +90°C)  
LTH = Low temperature (PUR, FEP, (F)VMQ seals -60°C to +60°C)  
1NF = Inlet filter  
EXF = Exhaust filter  
ALF = 1NF + EXF  
LT1 = LTH + 1NF  
LT2 = LTH + EXF  
LTA = LTH + 1NF + EXF

**Not used**  
0 = Default

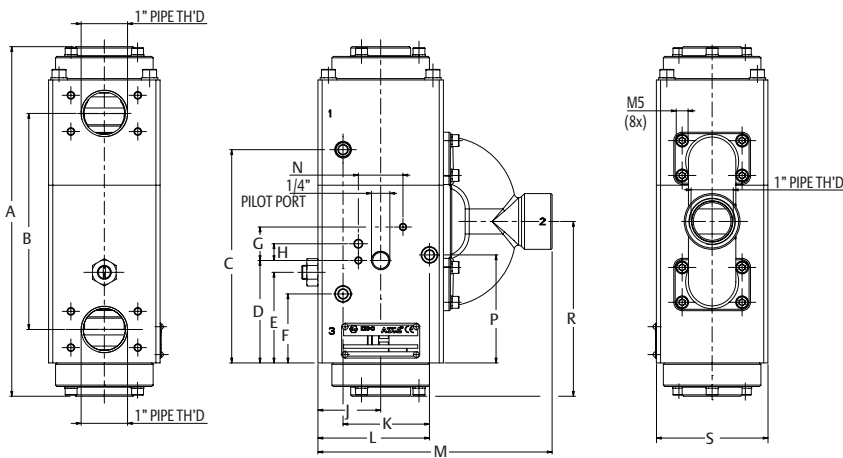
**Not used**  
0 = Default

**Default characteristics**  
0 = NAMUR interface - IP66/67 - SIL3 - ATEX non electrical-  
CUTR certified

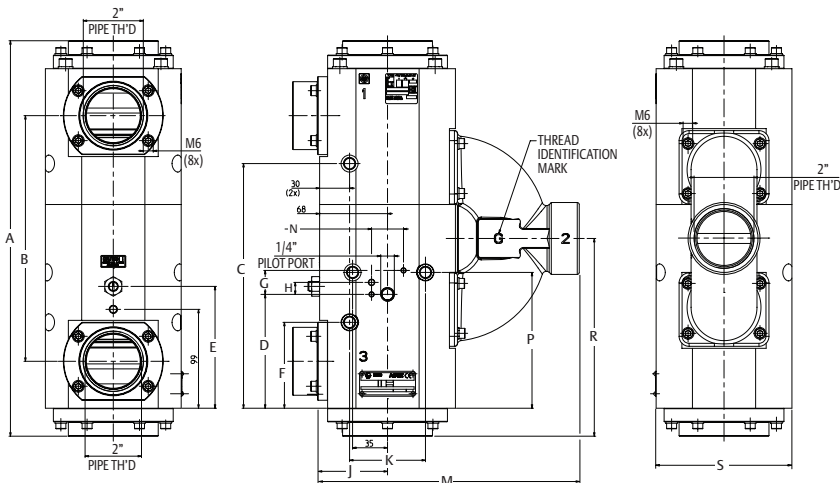
Dimensions (mm), Weight (kg)




SERIES 330 - 1/2 AND 1"



SERIES 330 - 1 1/2 AND 2"



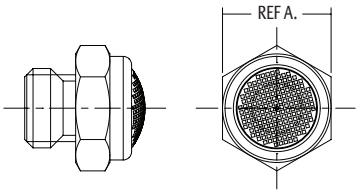
80057GB-2019/R01

Dimensions (mm), Weight (kg) 

pipe size	body	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	weight
1/2	Aluminium	185,8	118	118	57	46,5	38	24	12	30	36	52	120,5	32	60,5	92,7	66	2,2 kg
	AISI 316L SS																	5,0 kg
1	Aluminium	250,8	155	153	73,5	65	49,5	24	12	45	62	80	168	32	77,5	125,4	80	4,2 kg
	AISI 316L SS																	10,6 kg
1 1/2 & 2	Aluminium	396	246	245	114	122	86	24	12	68	76	-	287	32	136	198	136	16,0 kg
	AISI 316L SS																	40,0 kg

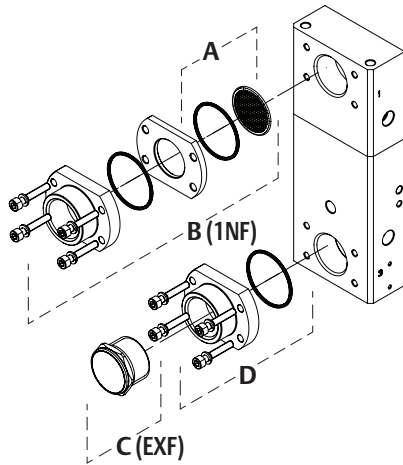
316L SS Exhaust protector - C (EXF) <sup>(1)</sup>

pipe size	thread	part number	mesh\filtering	wrench size (REF A.)
1/2	ISO 228/1	131875-012	100 - 200 µm	24
	NPT	131875-013		
1	ISO 228/1	131875-010	60 - 80 µm	36
	NPT	131875-011		

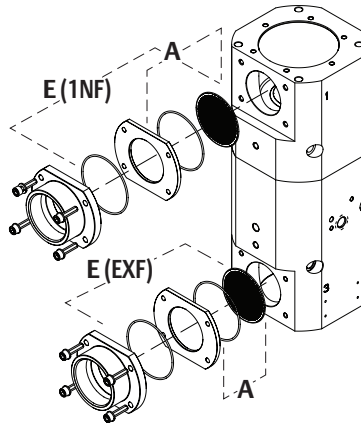


Inlet / outlet (spare parts) kits

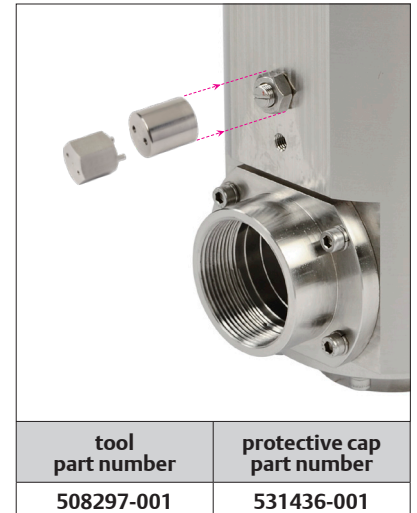
ASSEMBLY DRAWING 1/2" & 1"



ASSEMBLY DRAWING 1 1/2" & 2"

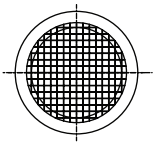


PROTECTIVE CAP AND TOOL FOR DAMPENING SCREW



316 SS Inlet/exhaust filter - A <sup>(1)</sup>

pipe size	filter type	mesh\filtering
1/2	inlet (1NF)	26 µm
1		
1 1/2	exhaust (EXF)	63 µm
2		



Spare parts kits no.

pipe size	catalogue number	booster valve maintenance kit number	replacement inlet filter - A <sup>(1)</sup> kit number	
			Inlet	Outlet
<b>FPM C326083</b>				
1/2	*330A4*000 - A00 / 1NF / EXF / ALF - 00	C326081	C326083	-
1	*330A6*000 - A00 / 1NF / EXF / ALF - 00	C325841	C325842	-
1 1/2	*330A8*000 - A00 / 1NF / EXF / ALF - 00	C326227	C326229	C326233
2	*330A9*000 - A00 / 1NF / EXF / ALF - 00	C326227	C326229	C326233
<b>PUR, FEP and (F)VMQ</b>				
1/2	*330A4*000 - LTH / LT1 / LT2 / LTA - 00	C326080	C326082	-
1	*330A6*000 - LTH / LT1 / LT2 / LTA - 00	C325837	C325838	-
1 1/2	*330A8*000 - LTH / LT1 / LT2 / LTA - 00	C326226	C326228	C326232
2	*330A9*000 - LTH / LT1 / LT2 / LTA - 00	C326226	C326228	C326232

<sup>(1)</sup> Refer to inlet/outlet spare parts kits assembly drawing as shown above

Filter/nozzle kits no.

pipe size	catalogue number	thread	inlet filter module <sup>(1)</sup> B (1NF) / E (1NF) <sup>(2)</sup>		nozzle module D <sup>(3)</sup>	
			Stainless steel	Aluminium	Stainless steel	Aluminium
<b>FPM</b>						
1/2	*330A4*000 - A00 / 1NF / EXF / ALF - 00	ISO 228/1	C326085 + C326089	C326085 + C326144	C326089	C326144
		NPT	C326085 + C326087	C326085 + C326143	C326087	C326143
1	*330A6*000 - A00 / 1NF / EXF / ALF - 00	ISO 228/1	C326042 + C326035	C326042 + C326140	C326035	C326140
		NPT	C326042 + C325843	C326042 + C326139	C325843	C326139
1 1/2	*330A8*000 - A00 / 1NF / EXF / ALF - 00	ISO 228/1	C326231	C326233	-	-
		NPT	C326231	C326233	-	-
2	*330A9*000 - A00 / 1NF / EXF / ALF - 00	ISO 228/1	C326231	C326233	-	-
		NPT	C326231	C326233	-	-
<b>PUR, FEP and (F)VMQ</b>						
1/2	*330A4*000 - LTH / LT1 / LT2 / LTA - 00	ISO 228/1	C326084 + C326088	C326084 + C326142	C326088	C326142
		NPT	C326084 + C326086	C326084 + C326141	C326086	C326141
1	*330A6*000 - LTH / LT1 / LT2 / LTA - 00	ISO 228/1	C326041 + C325034	C326041 + C326138	C325034	C326138
		NPT	C326041 + C325839	C326041 + C326137	C325839	C326137
1 1/2	*330A8*000 - LTH / LT1 / LT2 / LTA - 00	ISO 228/1	C326234	C326232	-	-
		NPT	C326234	C326232	-	-
2	*330A9*000 - LTH / LT1 / LT2 / LTA - 00	ISO 228/1	C326234	C326230	-	-
		NPT	C326234	C326230	-	-

<sup>(1)</sup> Can also be used for exhaust filter

<sup>(2)</sup> In/outlet filter module for 1 1/2" & 2"

<sup>(3)</sup> Refer to inlet/outlet kits assembly drawings as shown on page 3, for 1/2" & 1"

How to order Booster Valve with Solenoid Pilot Valve



STEP 1

Configure product selection code following selection guide on page 2

**Ordering example:**  
**8330A6S0001NF00**

STEP 2

Select ASCO NAMUR solenoid valve from the [327 series NAMUR catalogue page \(80107GB\)](#) and add TPL 27121

**Ordering example:**  
**NFX 8327B103 24V/DC TPL 27121**

STEP 3

Order above mentioned codes to secure optimised special packaging.

**NOTE:** Mounting will be very easy using the supplied NAMUR mounting bolts and seals

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