

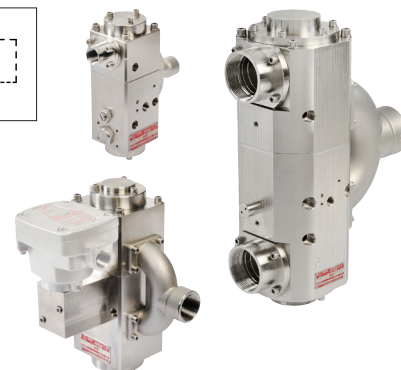
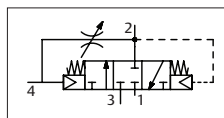
# ASCO™ Volume Boosters

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

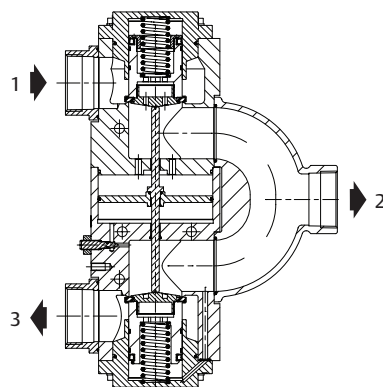
fluids (*)	temperature range (TS)	seal material (*)
air, inert gas	-20 to +90°C	FPM (fluorelastomer)
	-60 to +60°C	PUR (polyurethane), FEP (fluorinated ethylene propylene), (F)VMQ (fluorosilicone) <sup>(1)</sup>

## Materials in contact with fluid

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

	Stainless steel body	Aluminium body
<b>Body</b>	AISI 316L SS	Aluminium, hard anodised
<b>Stem</b>	Stainless steel	Stainless steel
<b>Springs</b>	Stainless steel	Stainless steel
<b>Sealings &amp; poppets</b>	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

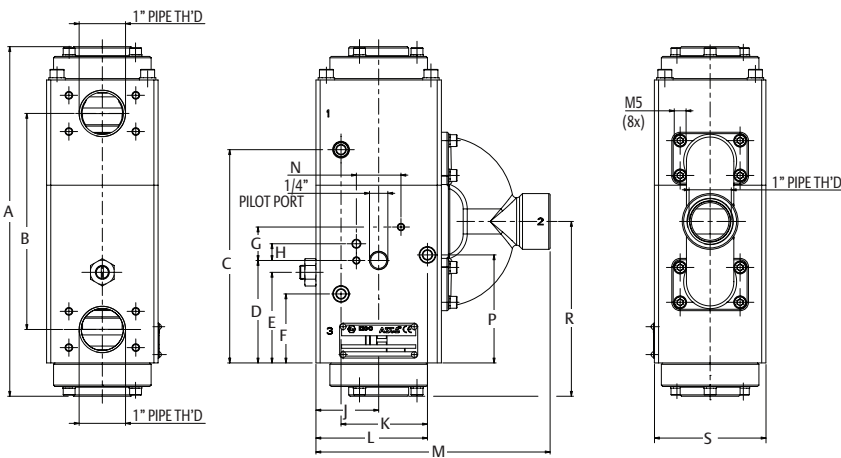
**Not used**  
0 = Default

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

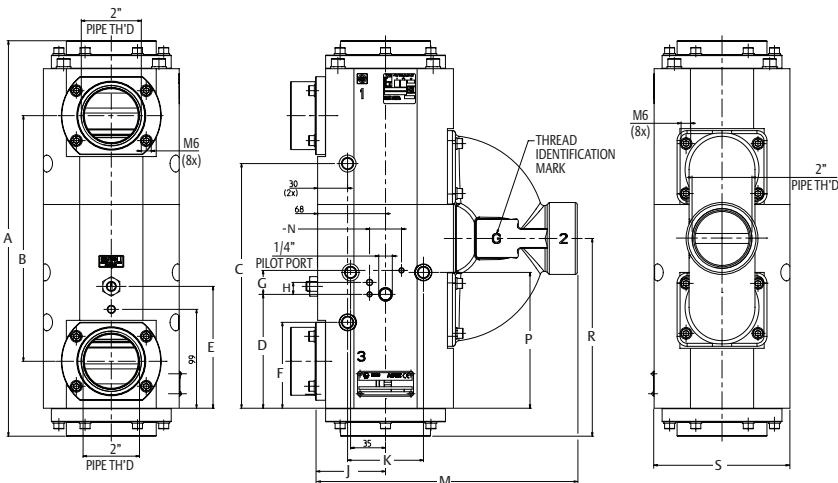
Dimensions (mm), Weight (kg)




SERIES 330 - 1/2 AND 1"



SERIES 330 - 1 1/2 AND 2"



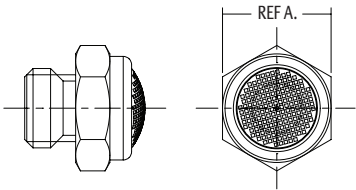
80057GB-2019/R01

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

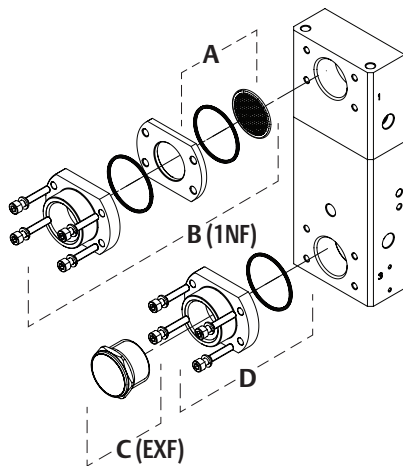
316L SS Exhaust protector - C (EXF) <sup>(1)</sup>

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		

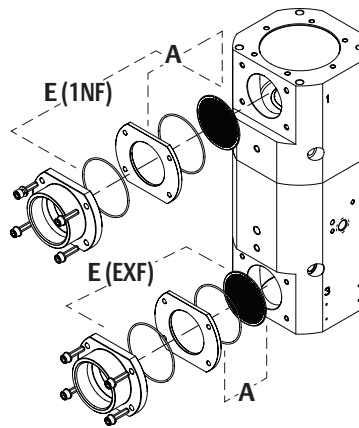


Inlet / outlet (spare parts) kits

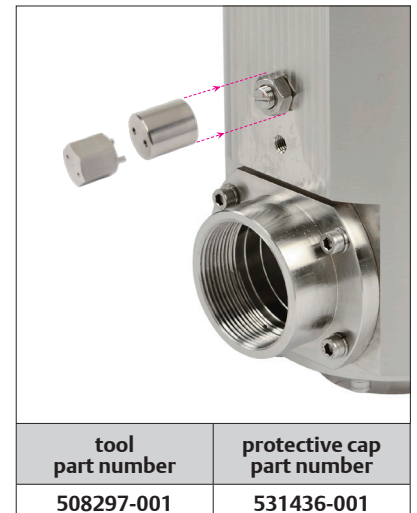
ASSEMBLY DRAWING 1/2" & 1"



ASSEMBLY DRAWING 1 1/2" & 2"

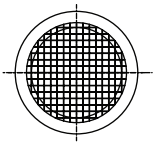


PROTECTIVE CAP AND TOOL FOR DAMPENING SCREW



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