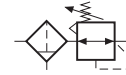




# FILTER, REGULATOR AND FILTER REGULATOR

stainless steel 316L  
compact 1/4, high flow 1/4, 1/2, 3/4 and 1

Air Preparation



Series

**342**

## FEATURES

- Stainless Steel Filter, Regulator and Filter Regulator intended for corrosive environment and suitable for use in potentially explosive atmosphere caused by gases, vapours, mists and / or dust according to new **ATEX directive 2014/34/EU**.
- SAFETY CODE:**  
II 2GD IIC T100°C (T5), with 90°C ambient temperature  
II 2GD IIC T85°C (T6), with 75°C ambient temperature  
**(ZONE 1-21) Explosion group IIC**
- CU-TR certified for potentially explosive atmospheres
- Functional Safety: IEC 61508, SIL certified
- Comply with the European Essential Health and Safety Requirements **(EN13643-1)**
- All internal metal parts made of 316 / 316L stainless steel
- Built-in overpressure relieving function, non-relieving option available
- Quick Relief available <sup>(1)</sup>, allowing downstream pressure in the actuator or other instrument to exhaust in the event if supply pressure is lost
- 316L Stainless Steel body, bonnet and bowl
- Internal springs made of INCONEL® to suit sour gas environment complying to NACE MR0175 / ISO 15156 <sup>(2)</sup>

<sup>(1)</sup> Available for High Flow SSFR and standalone regulator as an option

<sup>(2)</sup> Only available for High Flow SS FR as an option

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## BENEFITS

- Precise tuning and regulation - using dual spring design <sup>(3)</sup> <sup>(4)</sup>
- Improved regulation accuracy - with pitot tube feedback <sup>(3)</sup> <sup>(4)</sup>
- Longer lifespan - using rolling diaphragm
- Effective moisture removal - using fin diverters to create centrifugal action <sup>(3)</sup>
- Long lasting product labelling - laser etched marking on stainless steel bowl

<sup>(3)</sup> Only available for High Flow 1/4 - 1/2 SS FR

<sup>(4)</sup> Only available for High Flow 3/4 - 1 SS FR

## CHARACTERISTICS

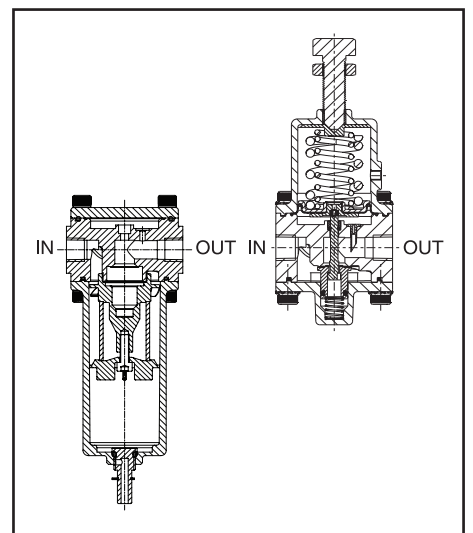
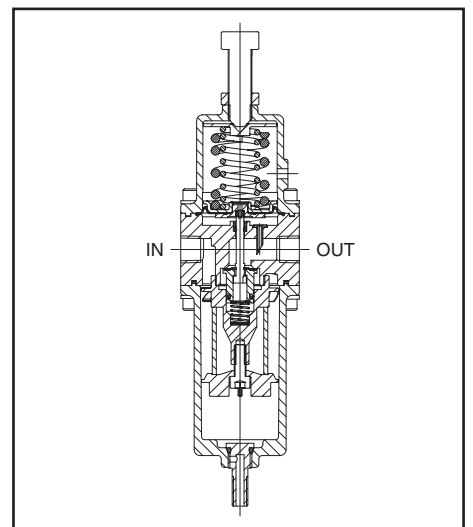
	Compact	High Flow (1/4 - 1/2)	High Flow (3/4 - 1)
Fluids	Compressed air, neutral gas, natural gas	Compressed air, neutral gas, natural gas & sour natural gas	
Compliance to NACE for sour Gas environment	No	Yes (as an option)	
Quick Relief	No	Yes <sup>(5)</sup> (as an option)	
Ports	1/4	1/4 & 1/2	3/4 & 1
Threads	NPT G as an option		
Pressure range (inlet)	0 - 20 bar (Manual Drain) 2,5 - 11 bar (Auto Drain)		
Regulating pressure (outlet)	0,5 - 10 bar		
Regulation	By hexagonal head screw with nut		
Hysteresis	< 0,32 bar	< 0,2 bar	< 0,25 bar
Filtering capacity	25 µm & 5 µm		40 µm, 25 µm & 5 µm
Operating temperature <sup>(6)</sup>	-40°C to +90°C		
Low temperature option	-50°C	-60°C	-
Condensate Drain	Manual & Automatic		

<sup>(5)</sup> Available for standard temperature of -40°C to +90°C only

<sup>(6)</sup> Operating temperature for Automatic Drain: +0°C to +60°C

## CONSTRUCTION

	Compact	High Flow (1/4 - 1/2)	High Flow (3/4 - 1)
Body, bonnet & bowl	AISI 316L SS		
Bowl capacity	25 cm <sup>3</sup>	75 cm <sup>3</sup>	160 cm <sup>3</sup>
Filtering element	AISI 316 SS		
Diaphragm	LT FPM	HNBR	FPM
Elastomers	FPM		



**PRODUCT CODE**

**342 A 8 0 0 1 AD**

**Product series**  
342

**Revision letter**  
A = Initial release

**F/R/FR type**  
8 = SS Filter Regulator (FR)  
9 = Filter (F)<sup>(9)</sup>  
A = Regulator (R)<sup>(9)</sup>

**Pressure relief / vent hole**  
0 = Non relief diaphragm type<sup>(10)(11)</sup>  
2 = Ø M5 thread<sup>(2)</sup>  
4 = Ø 1/8 NPT<sup>(2)</sup>

**Certifications & approvals**  
0 = ATEX 1/21  
1 = ATEX 1/21 + CUTR  
2 = ATEX 1/21 + NACE<sup>(9)</sup>  
3 = ATEX 1/21 + NACE + CUTR<sup>(9)</sup>

<sup>(1)</sup> Not available for Regulator  
<sup>(2)</sup> Not available for filter  
<sup>(3)</sup> For High Flow SSFR or Standalone Regulator, a 316 SS pressure gauge with Ø63mm dial and 1/4" NPT gauge port will be delivered  
<sup>(4)</sup> For Compact SSFR, a 316 SS pressure gauge with Ø50mm dial and 1/8" NPT gauge port will be delivered  
<sup>(5)</sup> Not mounted onto the product. Separate packaging.  
<sup>(6)</sup> Available for High-Flow SSFR and standalone regulator only  
<sup>(7)</sup> For High-Flow 1/4" - 1/2" SSFR or Compact SSFR with pressure gauge, a special low temperature 316 SS pressure gauge will be delivered  
<sup>(8)</sup> Not available for High-Flow 3/4" - 1" SSFR, standalone filter and regulator  
<sup>(9)</sup> Not available for Compact version  
<sup>(10)</sup> Default "0" for standalone filter option.  
<sup>(11)</sup> Bonnet with Ø 1/8" NPT thread  
<sup>(12)</sup> Only available in Filter regulator. No standalone filter or regulator.

**Options**

AD = Automatic Drain<sup>(1)</sup>  
AN = Automatic Drain with 1/8 NPT connection<sup>(1)</sup>  
G = 316 SS pressure gauge<sup>(2)(3)(4)(5)</sup>  
K = Quick Relief<sup>(6)</sup>  
LT = Low Temperature<sup>(7)(8)</sup>  
MB = 316L SS Mounting Brackets<sup>(5)</sup>  
*AD + AN is not a possible combination*  
*LT + AD/AN is not a possible combination*

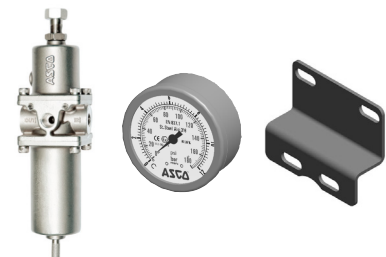
**Filtration/port size**

1 = High Flow 1/4 NPT 25 µm or Regulator only  
2 = High Flow 1/4 G 25 µm or Regulator only  
3 = High Flow 1/2 NPT 25 µm or Regulator only  
4 = High Flow 1/2 G 25 µm or Regulator only  
5 = High Flow 1/4 NPT 5 µm  
6 = High Flow 1/4 G 5 µm  
7 = High Flow 1/2 NPT 5 µm  
8 = High Flow 1/2 G 5 µm  
9 = Compact Basic Flow 1/4 NPT 25 µm<sup>(12)</sup>  
A = Compact Basic Flow 1/4 G 25 µm<sup>(12)</sup>  
B = Compact Basic Flow 1/4 NPT 5 µm<sup>(12)</sup>  
C = Compact Basic Flow 1/4 G 5 µm<sup>(12)</sup>  
D = High Flow 3/4 NPT 25 µm or Regulator only  
E = High Flow 3/4 G 25 µm or Regulator only  
F = High Flow 1 NPT 25 µm or Regulator only  
G = High Flow 1 G 25 µm or Regulator only  
H = High Flow 3/4 NPT 40 µm  
J = High Flow 3/4 G 40 µm  
K = High Flow 1 NPT 40 µm  
L = High Flow 1 G 40 µm  
M = High Flow 3/4 NPT 5 µm  
N = High Flow 3/4 G 5 µm  
P = High Flow 1 NPT 5 µm  
Q = High Flow 1 G 5 µm

- NOTES:**
- Please refer to our online configurator for option combinations availability
  - 40 µm, 25 µm & 5 µm filtration are not applicable for standalone regulator
  - 1/8" port size for compact SSFR is also available upon request
  - Standard regulating pressure is 0,5 - 10 bar. 0,5 - 2,5 bar is also available upon request




**ORDERING EXAMPLE**

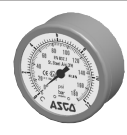
1. Compact low temperature stainless steel Filter Regulator (1/4 NPT, 25 µm filtration) with low temperature pressure gauge & mounting bracket  
• Product Code: 342A8209GLTMB
2. High-Flow stainless steel Filter Regulator (1/4 NPT, 25 µm filtration) with Auto Drain, pressure gauge & mounting bracket  
• Product Code: 342A8201ADGMB
3. High-Flow stainless steel Filter Regulator (3/4 NPT, 25 µm filtration) with Auto Drain, pressure gauge & mounting bracket  
• Product Code: 342A820DADGMB




**MAXIMUM FLOW VALUES**

Construction Type	Maximum Flow Values Following ISO Standards 5782, 6358 and 6953	Compact		High Flow (1/4 - 1/2)				High Flow (3/4 - 1)					
		l/min (ANR)											
		1/4 NPT		1/4 NPT		1/2 NPT		3/4 NPT			1 NPT		
		5 µm	25 µm	5 µm	25 µm	5 µm	25 µm	5 µm	25 µm	40 µm	5 µm	25 µm	40 µm
Filter	Inlet pressure = 6,3 bar and ΔP = 1 bar	-	-	1780	2600	1800	3300	2200	3900	5100	2350	4200	5500
Regulator	Inlet pressure = 10 bar, setpoint = 6,3 bar and ΔP = 1 bar	-	-	3120		7800		9150			10200		
Filter Regulator	Inlet pressure = 10 bar, setpoint = 6,3 bar and ΔP = 1 bar	1280	1400	2380	2450	3920	4430	4550	7500	8500	5000	7750	9500

AUTO DRAIN			
			
	COMPACT SS FR	HIGH FLOW SSFR (1/4 - 1/2)	HIGH FLOW SSFR (3/4 - 1)
Maximum inlet pressure	11 bar		
Operating pressure	2,5 - 11 bar		
Operating temperature	0°C to +60°C		
Metal parts	316L SS		
Elastomers	FPM		
Float material	Rigid Polyurethane	PP material	Rigid Polyurethane
Adaptor (316 SS) for 1/8 NPT conversion "AN" as option			

PRESSURE GAUGE			
			
	COMPACT SS FR	HIGH FLOW SSFR (1/4 - 1/2)	HIGH FLOW SSFR (3/4 - 1)
Pressure	0 - 10 bar	0 - 12 bar	
Diameter	Ø 50 mm	Ø 63 mm	
Gauge port size	1/8 NPT	1/4 NPT	
Material	316 Stainless Steel		
Protection	IP65; Safety glass; Fixed crimped case to avoid accidental dismounting		
Kit number	C325937	C325316	
Kit number (for Low Temp)	C325938	C325667	-

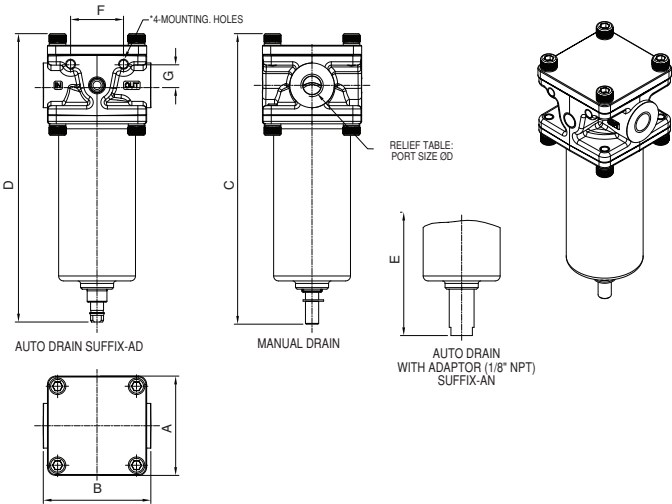
MOUNTING BRACKET			
			
	COMPACT SS FR	HIGH FLOW SSFR (1/4 - 1/2)	HIGH FLOW SSFR (3/4 - 1)
Material	316L Stainless Steel		
Kit number	C117877	C117813	

Option	Weight (kg)
Auto Drain	0,015
Adapter for Auto Drain	0,020
Pressure Gauge	0,164
Mounting Bracket	0,079

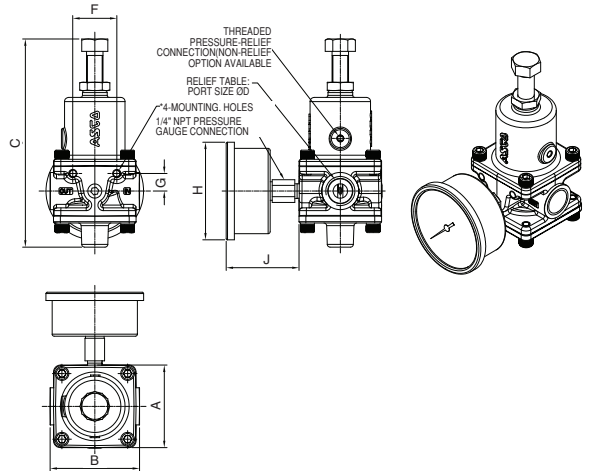
**INSTALLATION**

- Installation/Maintenance instructions are included with each Filter/Regulator
- Air flow direction indicated by IN/OUT as well as inlet & outlet indicators
- Pipe connection has standard thread according to NPT (ANSI 1.20.3)

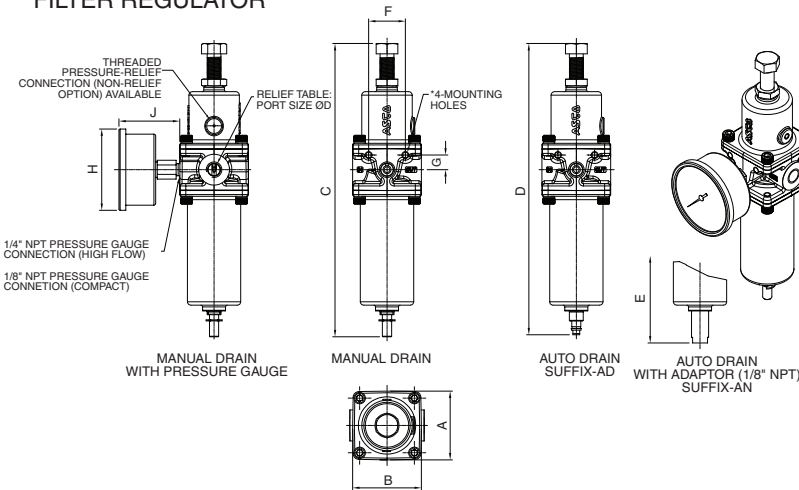
## DIMENSIONS(mm), WEIGHT(kg) FILTER



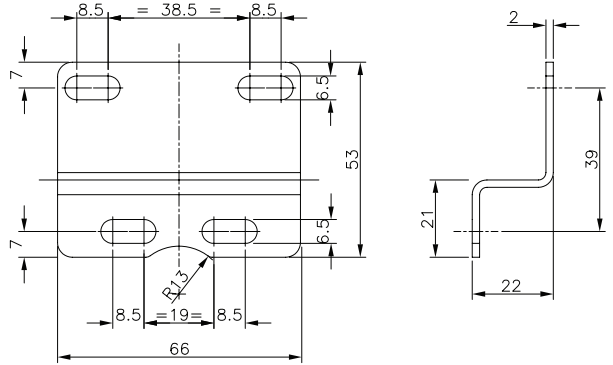
## REGULATOR



## FILTER REGULATOR



## MOUNTING BRACKET



\* Note: Mounting hole size M6 for High-Flow 1/4, 1/2, 3/4 & 1 SS FR and mounting hole size M5 for Compact SS FR

## DIMENSIONS(mm), WEIGHT(kg)

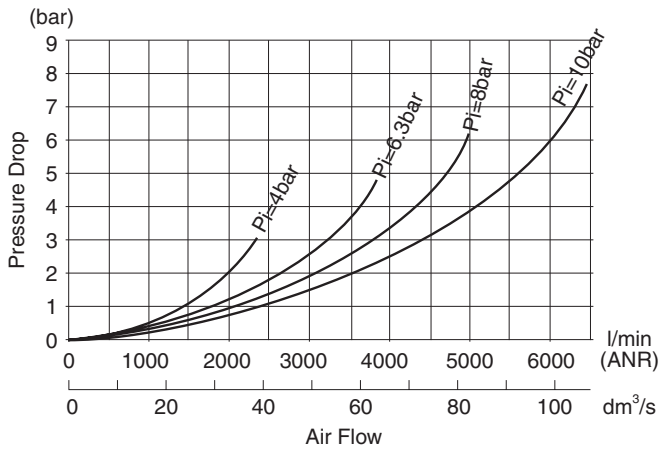
	Type	ØD	Weight (kg)	A	B	C	D	E	F	G	H	J
		NPT										
COMPACT	Filter Regulator	1/4	1,0	45	45	185	223	233	20	10	Ø58	53
		1/2	0,7	60	65	177	175	183	32	12,75	-	-
HIGH FLOW	Filter	3/4	5,0	85	90	242	240	250	32	21	-	-
		1	5,0	85	90	242	240	250	32	21	-	-
		1	5,0	85	90	242	240	250	32	21	-	-
	Regulator	1/4	1,2	60	65	151,3	-	-	32	12,75	Ø71	51
		1/2	1,2	60	65	151,3	-	-	32	12,75	Ø71	51
		3/4	4,5	85	90	230	-	-	32	21	Ø71	52
	Filter Regulator	1/4	2,0	60	65	256	254	261	32	12,75	Ø71	51
		1/2	2,0	60	65	256	254	261	32	12,75	Ø71	51
		3/4	6,0	85	90	329	327	337	32	21	Ø71	52
		1	6,0	85	90	329	327	337	32	21	Ø71	52

## SPARE PARTS KITS

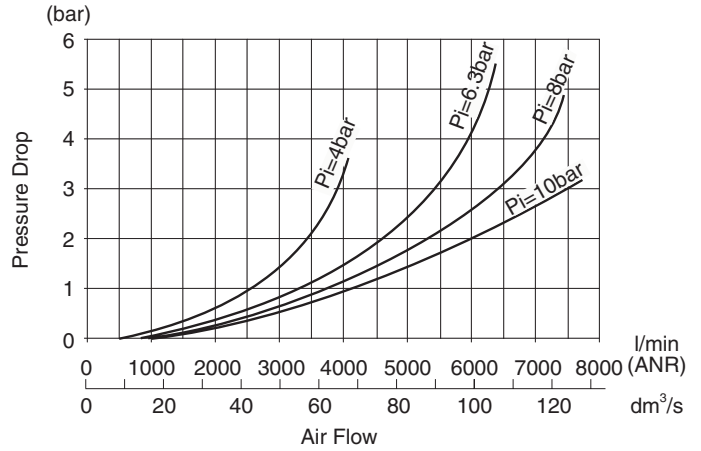
	Type	Filtering Capacity	Spare Parts Kit Number	Spare Parts Kit Number
			Standard	Low Temp
<b>COMPACT</b>				
1/4	Filter Regulator	25 µm	C325921	C325996
		5 µm	C325922	C325997
<b>HIGH FLOW</b>				
1/4 - 1/2	Filter	25 µm	C325309	
		5 µm	C325310	
	Regulator	-	C325311	C325993
		-	C325305	C325994
3/4 - 1	Filter	25 µm	C325307	C325995
		5 µm	C325307	C325995
	Regulator	40 µm	C326171	-
		25 µm	C326172	-
Filter Regulator	Regulator	5 µm	C326173	-
		-	C326174	-
	Filter Regulator	40 µm	C326176	-
		25 µm	C326177	-
		5 µm	C326178	-

**PRESSURE DROP vs. AIR FLOW CURVES**

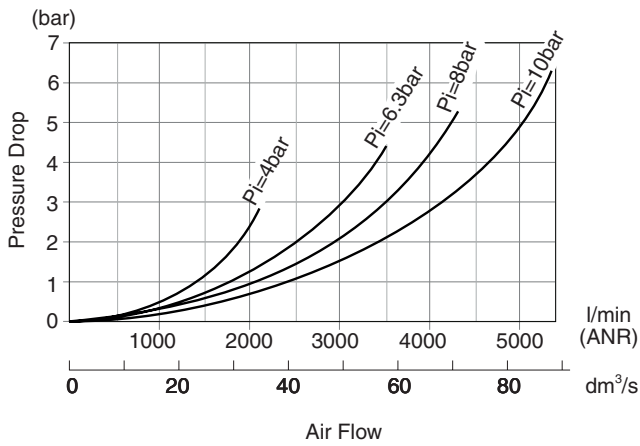
**High Flow St. steel filter 1/2" NPT Ref. : 342A9007**  
Filtration 5 µm with P inlet 4 - 6.3 - 8 - 10 bar



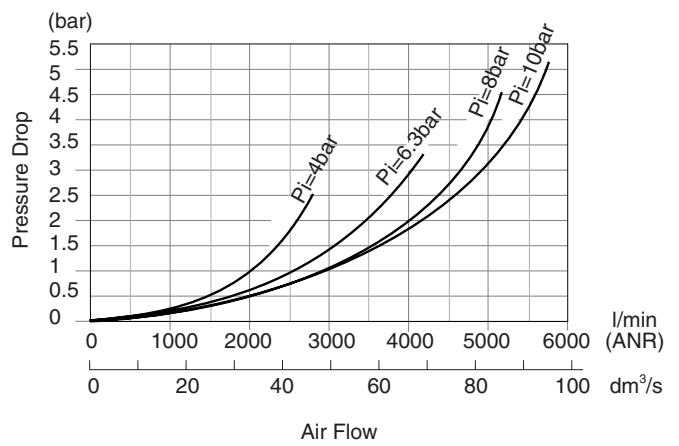
**High Flow St. steel filter 1/2" NPT Ref. : 342A9003**  
Filtration 25 µm with P inlet 4 - 6.3 - 8 - 10 bar



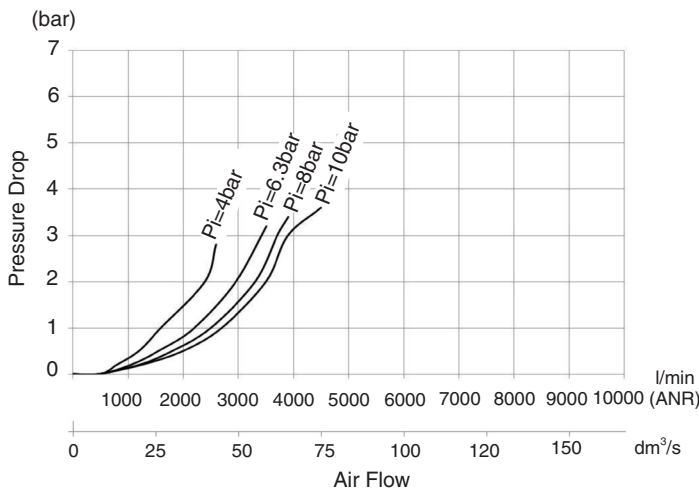
**High Flow St. steel filter 1/4" NPT Ref. : 342A9005**  
Filtration 5 µm with P inlet 4 - 6.3 - 8 - 10 bar



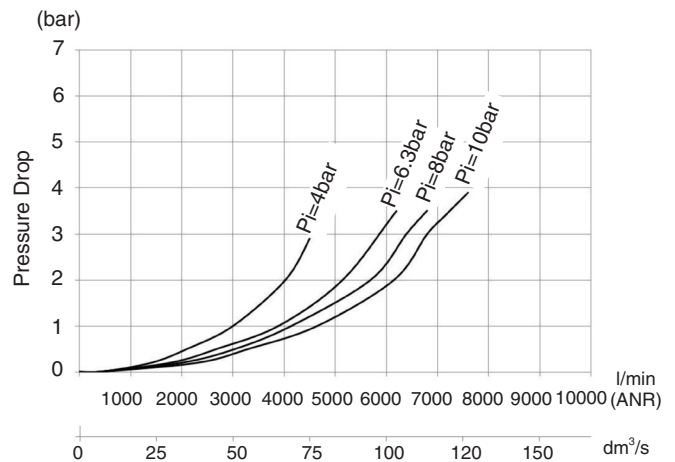
**High Flow St. steel filter 1/4" NPT Ref. : 342A9001**  
Filtration 25 µm with P inlet 4 - 6.3 - 8 - 10 bar



**High Flow St. steel filter 3/4" NPT Ref. : 342A920M**  
Filtration 5 µm with P inlet 4 - 6.3 - 8 - 10 bar

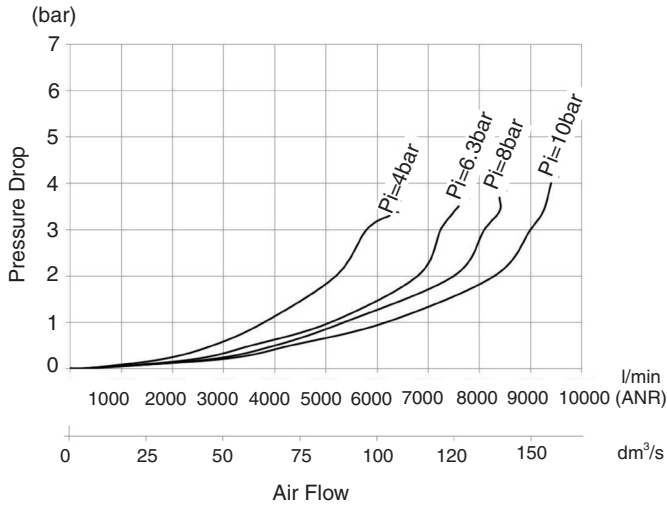


**High Flow St. steel filter 3/4" NPT Ref. : 342A920D**  
Filtration 25 µm with P inlet 4 - 6.3 - 8 - 10 bar

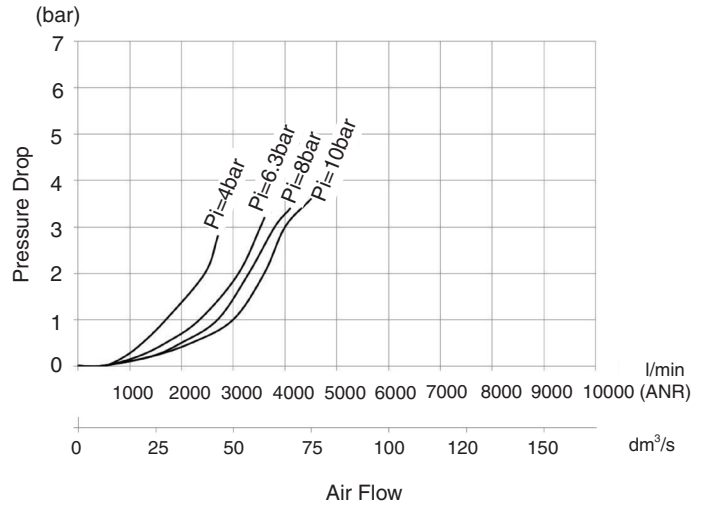


### PRESSURE DROP vs. AIR FLOW CURVES

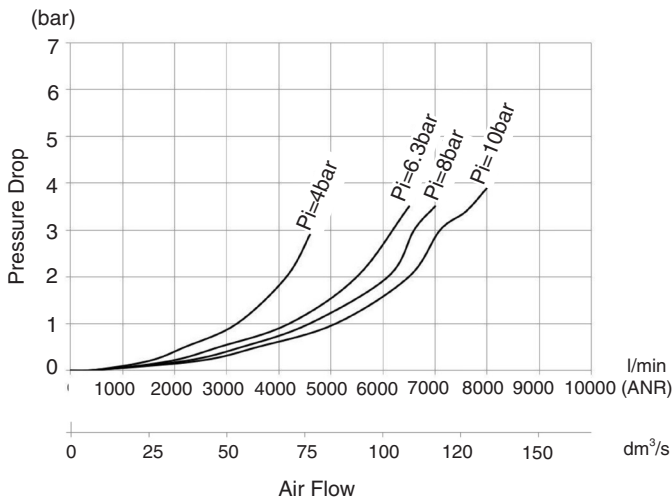
**High Flow St. steel filter 3/4" NPT Ref. : 342A920H**  
Filtration 40 µm with P inlet 4 - 6.3 - 8 - 10 bar



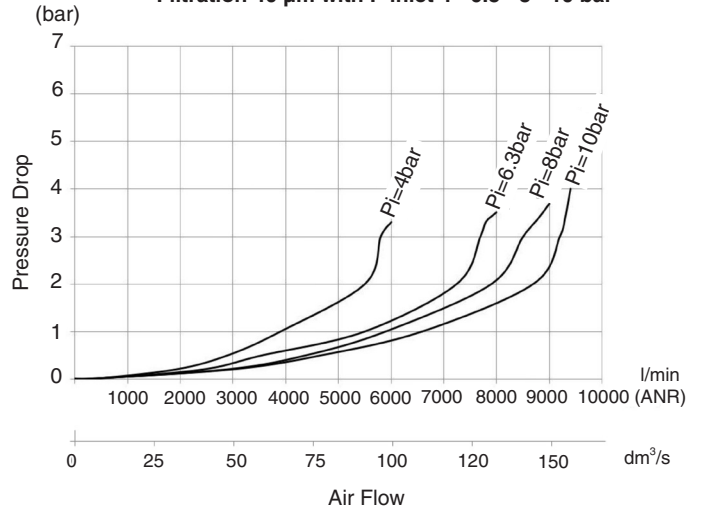
**High Flow St. steel filter 1" NPT Ref. : 342A920P**  
Filtration 5 µm with P inlet 4 - 6.3 - 8 - 10 bar



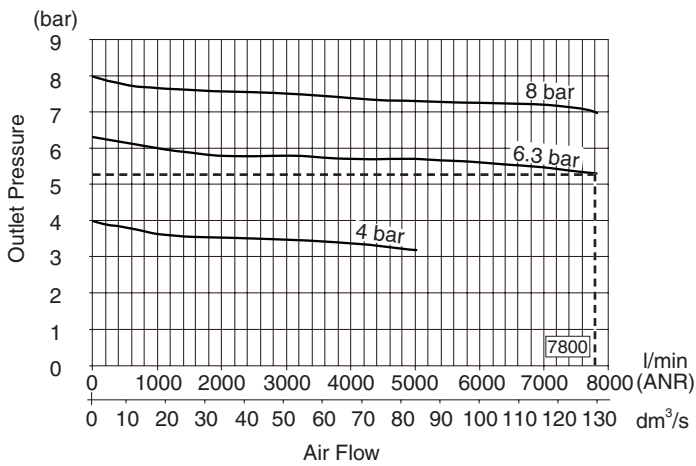
**High Flow St. steel filter 1" NPT Ref. : 342A920F**  
Filtration 25 µm with P inlet 4 - 6.3 - 8 - 10 bar



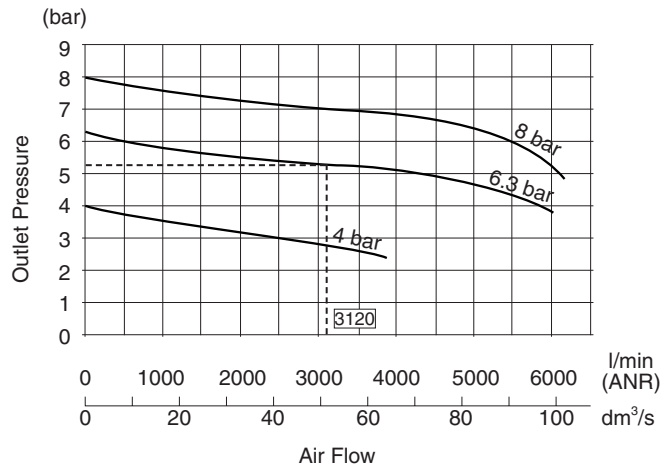
**High Flow St. steel filter 1" NPT Ref. : 342A920K**  
Filtration 40 µm with P inlet 4 - 6.3 - 8 - 10 bar



**High Flow St. steel regulator 1/2" NPT Ref. : 342AA403**  
P inlet 10 b - setpoint 4 - 6.3 - 8 bar

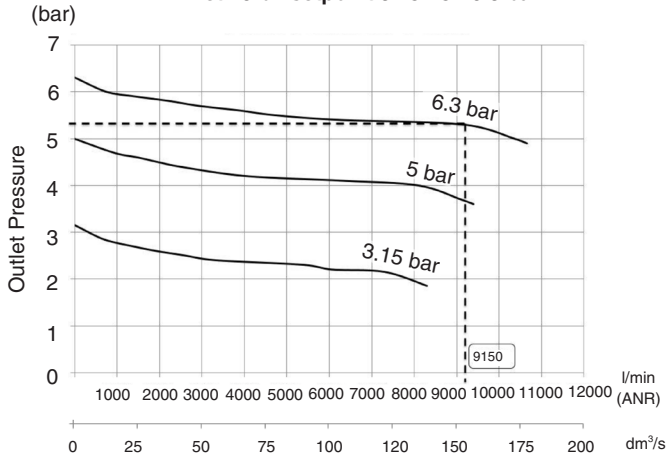


**High Flow St. steel regulator 1/4" NPT Ref. : 342AA401**  
P inlet 10 b - setpoint 4 - 6.3 - 8 bar

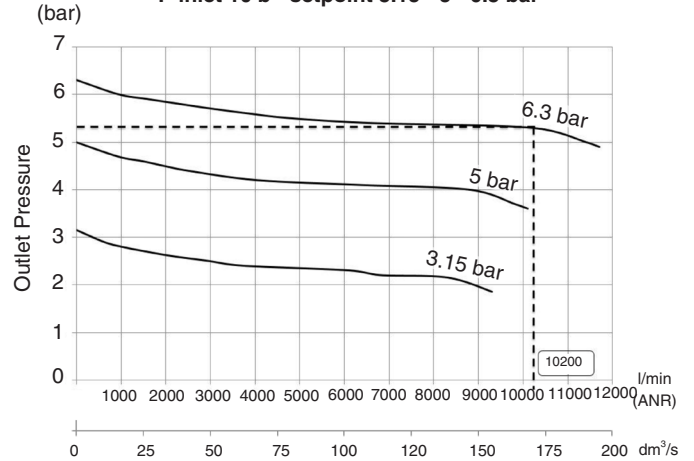


## PRESSURE DROP vs. AIR FLOW CURVES

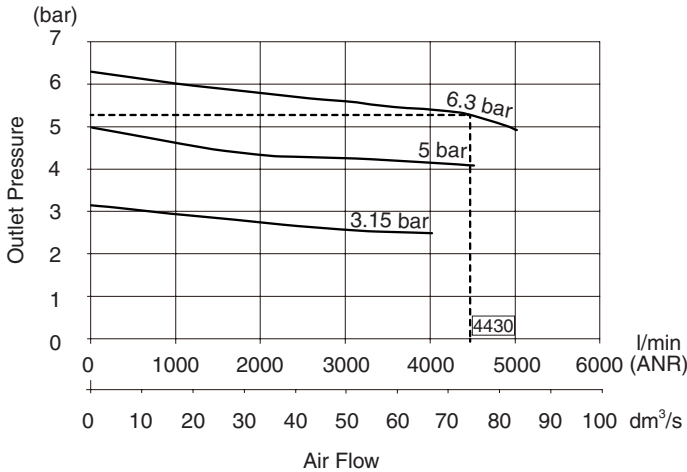
**High Flow St. steel regulator 3/4" NPT Ref. : 342AA20D**  
P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



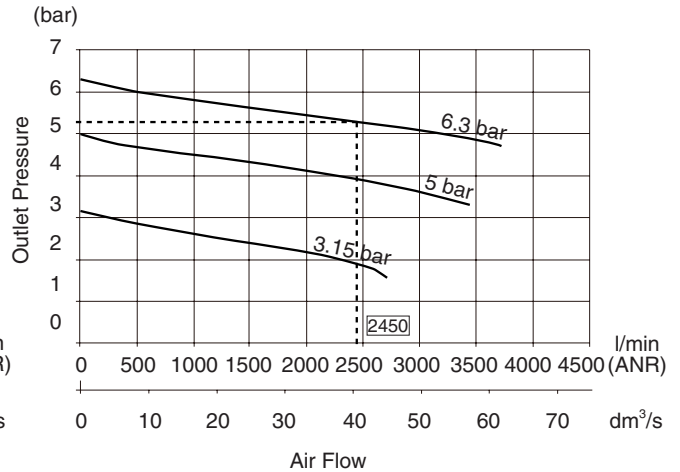
**High Flow St. steel regulator 1" NPT Ref. : 342AA20F**  
P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



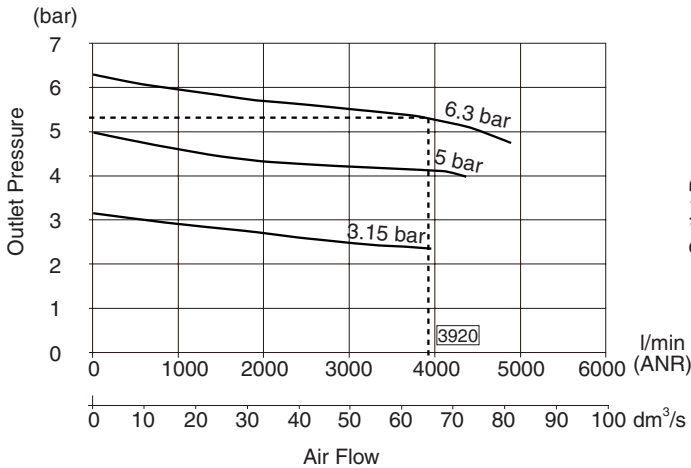
**High Flow St. steel filter regulator 1/2" NPT Ref. : 342A8203**  
Filtration 25 µm with P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



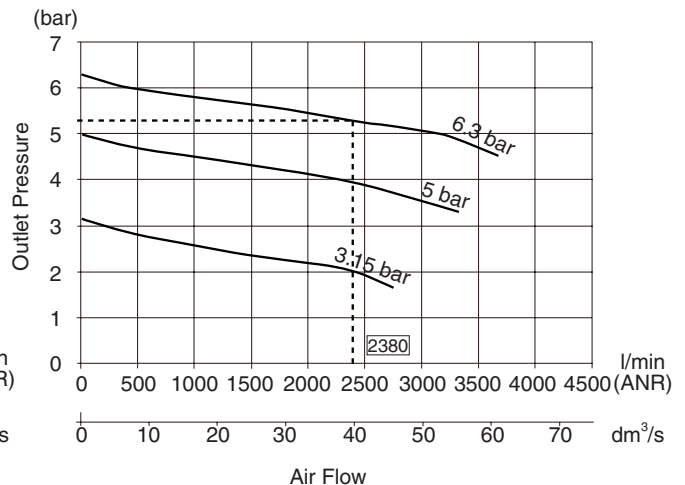
**High Flow St. steel filter regulator 1/4" NPT Ref. : 342A8201**  
Filtration 25 µm with P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



**High Flow St. steel filter regulator 1/2" NPT Ref. : 342A8207**  
Filtration 5 µm with P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar

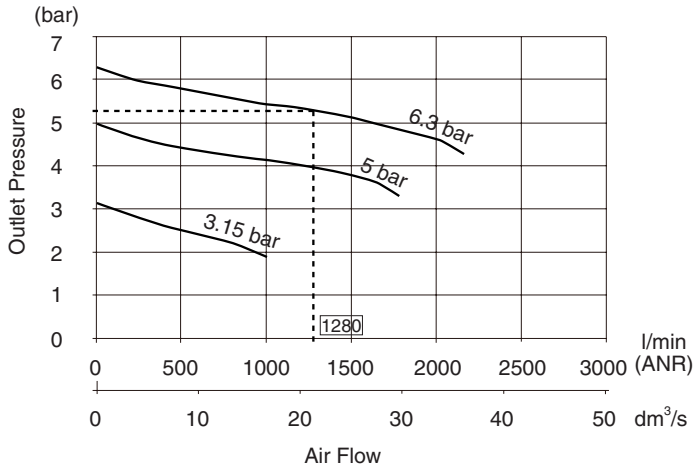


**High Flow St. steel filter regulator 1/4" NPT Ref. : 342A8205**  
Filtration 5 µm with P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar

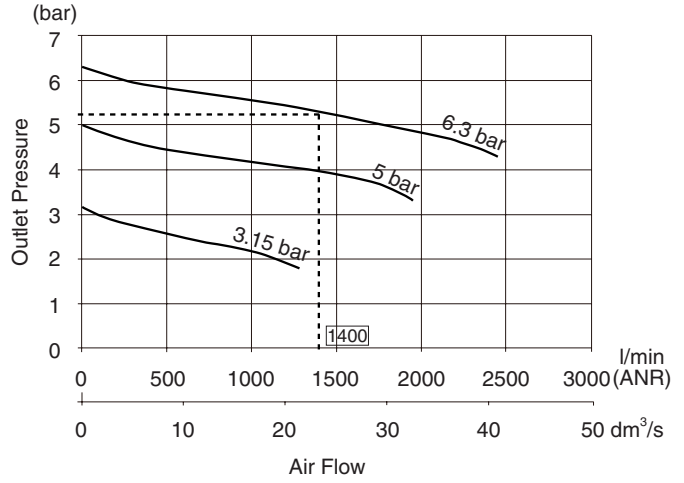


## PRESSURE DROP vs. AIR FLOW CURVES

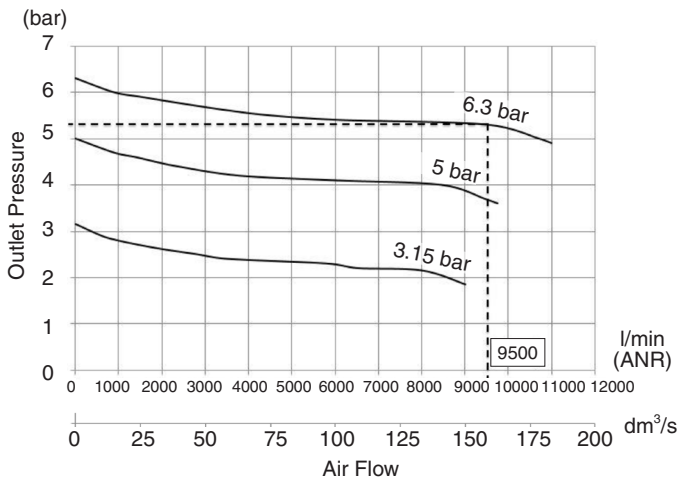
**Compact St. steel filter regulator 1/4" NPT Ref : 342A820B**  
 Filtration 5 µm with P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



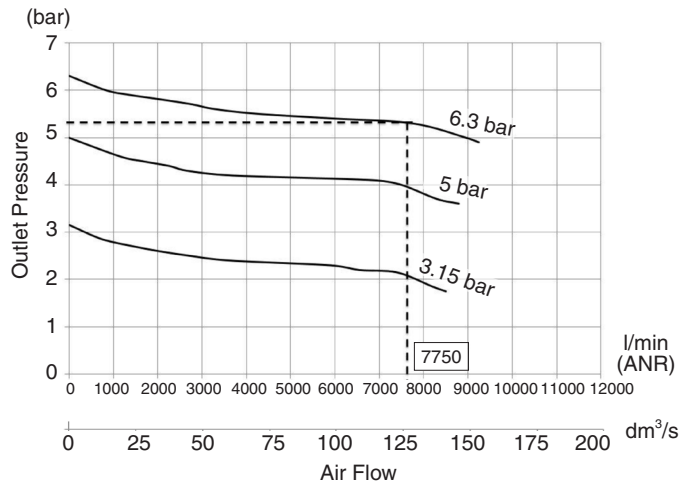
**Compact St. steel filter regulator 1/4" NPT Ref. : 342A8209**  
 Filtration 25 µm with P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



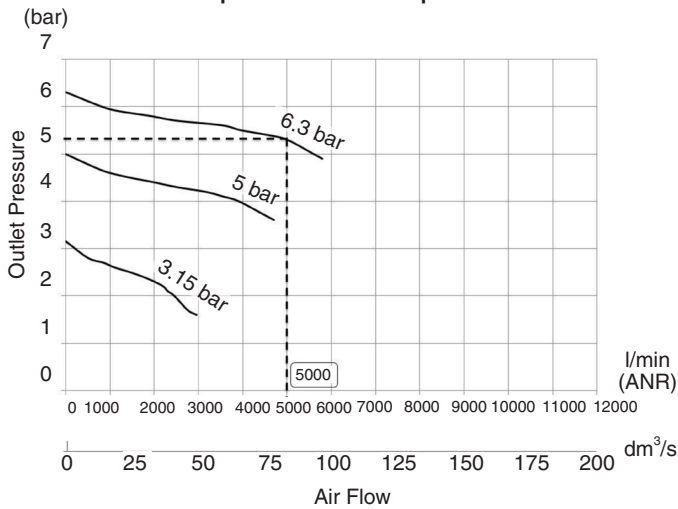
**High Flow St. steel filter regulator 1" NPT Ref : 342A820K**  
 Filtration 40 µm P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



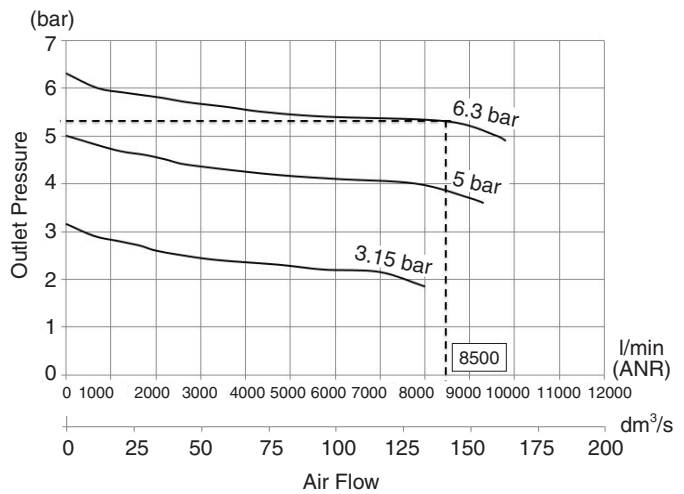
**High Flow St. steel filter regulator 1" NPT Ref : 342A820F**  
 Filtration 25 µm P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



**High Flow St. steel filter regulator 1" NPT Ref : 342A820P**  
 Filtration 5 µm P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



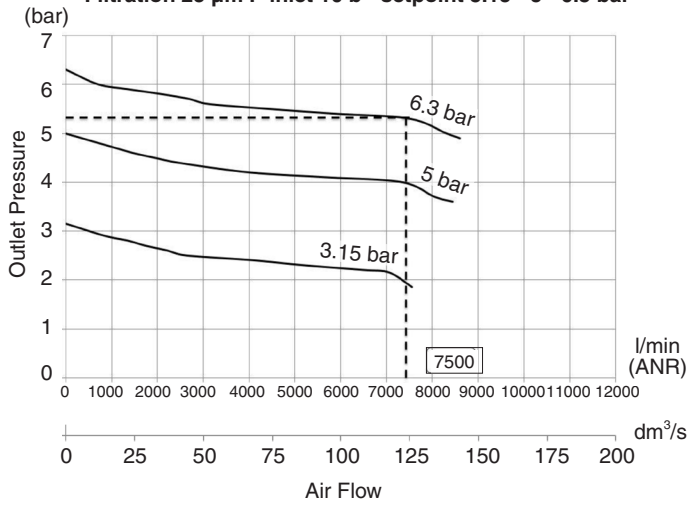
**High Flow St. steel filter regulator 3/4" NPT Ref : 342A820H**  
 Filtration 40 µm P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar





**PRESSURE DROP vs. AIR FLOW CURVES**

**High Flow St. steel filter regulator 3/4" NPT Ref : 342A820D**  
 Filtration 25 µm P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar



**High Flow St. steel filter regulator 3/4" NPT Ref : 342A820M**  
 Filtration 5 µm P inlet 10 b - setpoint 3.15 - 5 - 6.3 bar

