

BOOSTER REGULATOR SERIES VBA

- ✓ Increases main line pressure
- ✓ Compact design
- ✓ Protects downstream equipment from pressure fluctuations when used with an air tank
- ✓ Increases the power of actuator without changing to a larger cylinder
- ✓ No need for electrical input
- ✓ Optional air tanks for higher flow rate demand available for VBA2, VBA4
- ✓ Pressure gauges and silencers included
- ✓ Remote adjustment possible



TECHNICAL SPECIFICATIONS

Specification	VBA1110	VBA1111	VBA2, VBA4
Pressure increase ratio	Max. 2:1	Max. 4:1	Max. 2:1
Media	Air	Air	Air
Proof pressure	3.0MPa (30Bar)		1.5MPa
Max. working pressure	2.0MPa (20Bar)		0.99MPa
Set pressure range	0.2-2.0MPa		0.2-0.99MPa
Ambient and media temp. range	0 - 50°C		
Lubrication	Not required		
Installation	Horizontal		
Pressure adjustable mechanism	Relieving type		

INSTALLATION

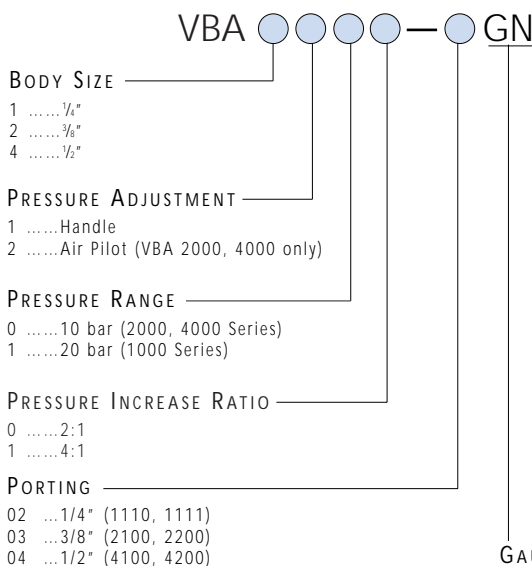
The booster regulator should be installed with its piston in a horizontal position.

Type	Handle Type				Air Pilot Operated Type	
	VBA1110-02	VBA1111-02	VBA2100-03	VBA4100-04	VBA2200-03	VBA4200-04
Max. flow*	400 l/n/min*	60 l/n/min**	1000 l/n/min**	1900 l/n/min**	1000 l/n/min**	1900 l/n/min*
Port Size (IN, OUT)	¼	¼	¾	½	¾	½
EXH. Port Size	¼	¼	¾	½	¾	½
Pilot EXH. Port Size	-				¼	
Pilot Pressure	-				1 - 5 Bar	
Weight	0.85 kg	0.98 kg	3.8 kg	7.5 kg	3.8 kg	7.5 kg

*Pressure IN=OUT=1.0MPa
**Pressure IN=OUT=0.5MPa

HOW TO ORDER

VBA BOOSTER REGULATOR



ACCESSORIES

VBA BOOSTER REGULATOR

38 LITRE AIR TANK

The above tank is of UK manufacture and is made in accordance with BS EN286-1. A pressure relief valve, a tank mounted pressure gauge and a condensate drain valve are all included.
UKT138 VBA2000/4000 Series

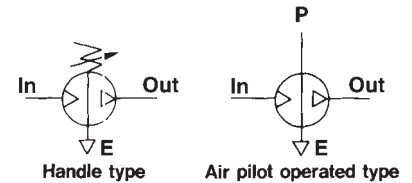
SPARES KITS

KT-VBA1110-P VBA1110 Series
KT-VBA1111-P VBA1111 Series
KT-VBA2100-P VBA2000 Series
KT-VBA4100-P VBA4000 Series

STOCKED PRODUCTS

FOR A LIST OF STOCKED PRODUCTS, PLEASE SEE THE CURRENT SMC PRICE LIST

SYMBOL



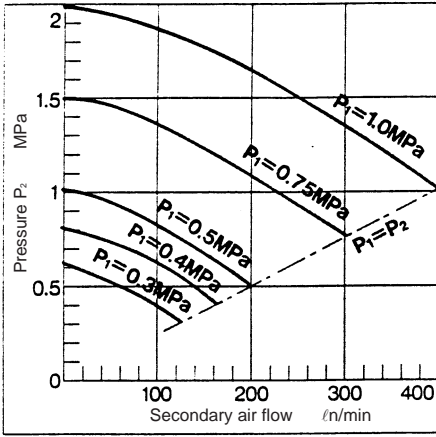
FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT REQUEST CATALOGUE REFERENCE E118

DIMENSIONS SEE NEXT PAGE

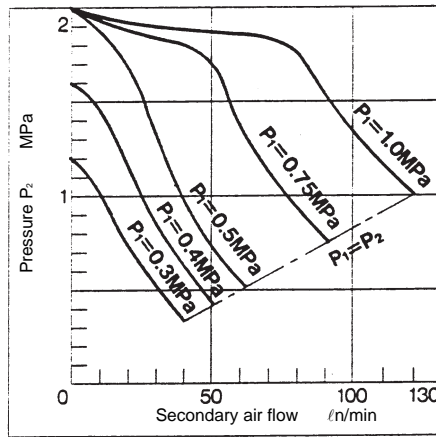


Air Preparation

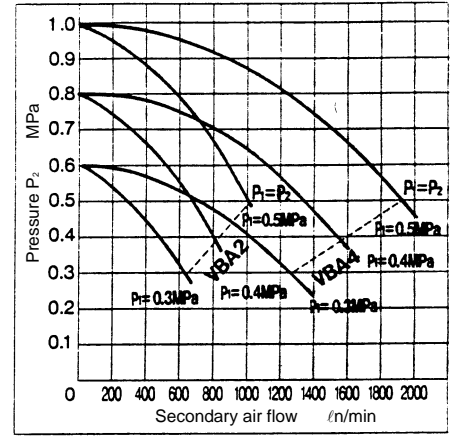
VBA1110
FLOW CHARACTERISTICS



VBA1111
FLOW CHARACTERISTICS

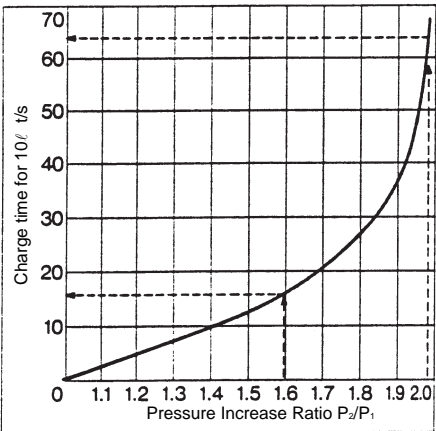


VBA2, VBA4
FLOW CHARACTERISTICS

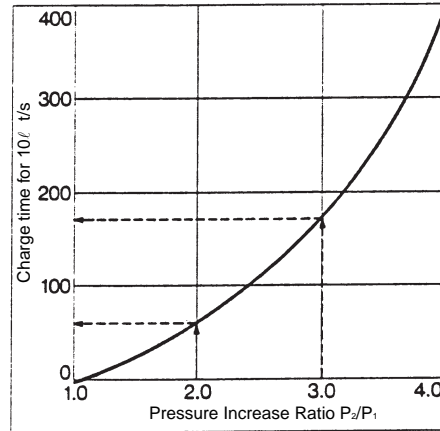


Example:
VBA 4 P1 = 0.5MPa P2 = 0.8MPa
Then maximum flow output = 1200 l/min

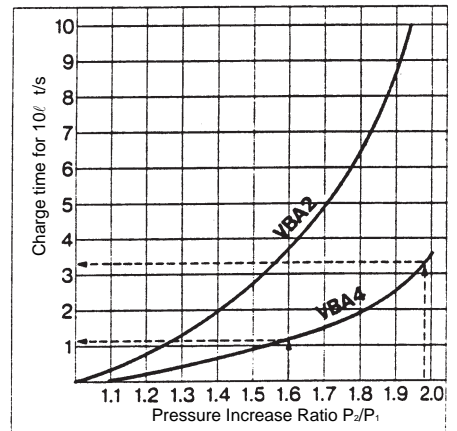
VBA1110
CHARGE CHARACTERISTICS



VBA1111
CHARGE CHARACTERISTICS



VBA2, VBA4
CHARGE CHARACTERISTICS



These graphs illustrate the time required to increase pressure in a closed tank

Example: to increase tank pressure to 0.8MPa, where P1 = 0.4MPa and tank pressure = 0.64MPa using a VBA booster:

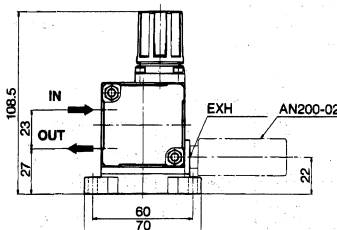
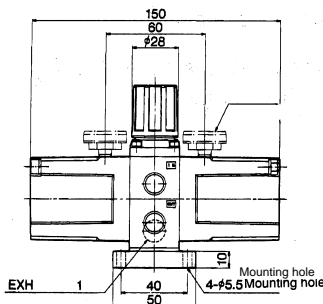
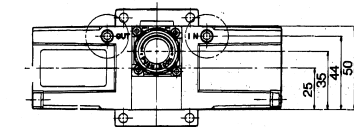
$$\text{initial } \frac{P_2}{P_1} = \frac{0.64}{0.4} = 1.6 \text{ taking 1.1s on graph}$$

$$\text{final } \frac{P_2}{P_1} = \frac{0.8}{0.4} = 2 \text{ taking 3.2s on graph}$$

Time taken to increase pressure = 3.2 - 1.1 seconds

= 2.1 seconds per 10 litre volume of tank

DIMENSIONS
HANDLE TYPE
VBA1110-02/VBA1111-02



SEE INSIDE FRONT COVER FOR
DETAILS OF YOUR LOCAL SALES OFFICE

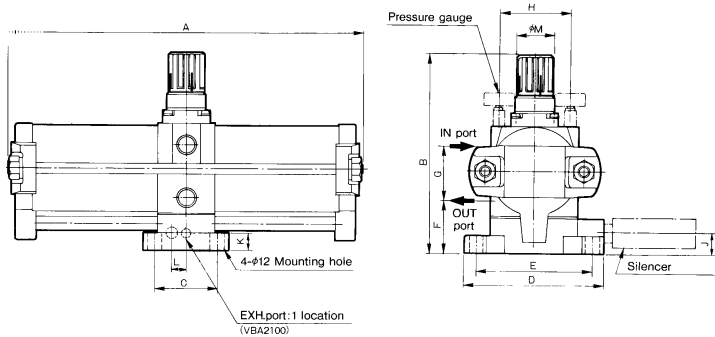


FOR FURTHER TECHNICAL
DETAILS ON THIS
PRODUCT REQUEST
CATALOGUE REFERENCE
E118

DIMENSIONS

HANDLE TYPE

VBA2100-03, VBA4100-04

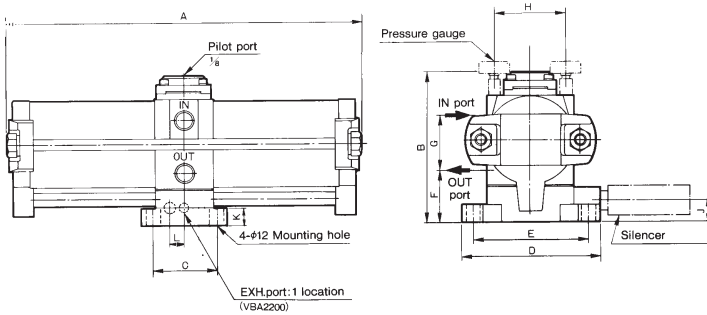


Model	Port Size	A	B	C	D	E	F	G	H	J	K	L	ØM
VBA2100-03	3/8	300	170	53	118	98	46	43	60.5	18	15	-	31
VBA4100-04	1/2	404	207.5	96	150	130	62.8	62	90	17	15	20	40

DIMENSIONS

AIR PILOT OPERATED TYPE

VBA2200-03, VBA4200-04



Model	Port Size	A	B	C	D	E	F	G	H	J	K	L
VBA2200-03	3/8	300	126.5	53	118	98	46	43	60.5	18	15	-
VBA4200-04	1/2	404	167	96	150	130	62.8	62	90	17	15	20

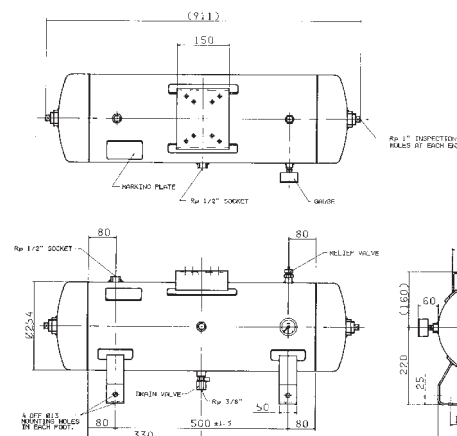
ACCESSORIES

KIT TO MOUNT AND PIPE BOOSTER REGULATOR TO TANK

Part N° of Kit
 VBA2100 / VBA2200UKT138-VBA2
 VBA4100 / VBA4200UKT138-VBA4
 VBA1110 / VBA1111not applicable

DIMENSIONS

TANK UKT138



Applicable to VBA2 and VBA4
 Max. working pressure 1.1MPa
 Volume 37 litres

Construction to BS EN286-1
 Pressure Certificate supplied

Assembly includes pressure relief valve, drain valve and gauge.

STOCKED PRODUCTS

FOR A LIST OF STOCKED PRODUCTS,
 PLEASE SEE THE CURRENT SMC PRICE LIST



FOR FURTHER TECHNICAL
 DETAILS ON THIS
 PRODUCT REQUEST
 CATALOGUE REFERENCE
 E118