

# MOS

## Polyamide PRESSURE BALANCE ELEMENTS for Industrial Application



Ventilation Glands  
Ventilation Plugs

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# Metal PRESSURE BALANCE ELEMENTS for Industrial Application



Ventilation Glands  
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# Ventilation Glands Polyamide

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### Cable glands with integrated ventilation

- Balances pressure differences between inner housing and the outside environment.
- Prevents damages according to pressure differences.
- Prevents the formation of water condensation in tightly-sealed standard housings.
- Advantages of cable gland and pressure balance element combined in one product.
- Properties of the ventilation membrane stay the same independent of cable diameter and torque.
- Membrane properties: hydrophobic, oleophobic.
- Easy assembly: install cable gland - insert cable - tighten cap.
- High quality strain relief and sealing, reliable performance for standard industrial applications.
- Up-to-date international approvals.

### Technical Details

Material	Body	PA 6 (Polyamide 6)	
	Cap	PA 6 (Polyamide 6)	
	Seal	CR (Chloroprene Rubber)	
	Vent Membran	PTFE	
	Gasket	NBR	
Protection Class		IP 66	
		IP 67	
Flammability	V2 according to UL94		
Operating Temperature	Permanent	-20 °C to +100 °C	Intermittent
			-30 °C to +150 °C
Cable Type	Non armoured		
Thread Type	<ul style="list-style-type: none"> <li>• Metric EN 60423</li> <li>• PG DIN 40430</li> <li>• Other thread types also available upon request.</li> </ul>		
Accessories	<ul style="list-style-type: none"> <li>• Lock nuts</li> <li>• Dome plugs</li> <li>• Gaskets</li> </ul>		
Remarks	<ul style="list-style-type: none"> <li>• Manufactured according to DIN EN 62444/50262.</li> <li>• We recommend the use of lock nuts and gaskets to ensure IP rating for rough surfaces or through holes.</li> <li>• Some approvals do not cover all colours or sizes.</li> </ul> <p><b>Note:</b> Applications of most cable glands don't require same parameters applied to tests. For applications strictly acc. to the approval definitions please consult data sheet.</p>		

### Approvals

	Certificate Number	Standards
	40040032	acc. to DIN EN 62444
	E199260	acc. to UL514

Some approvals do not cover all sizes or colours. For more approvals: see our webpage.



## Ventilation Glands Polyamide



Thread Type **METRIC** acc. to EN 60423

Size	Clamping Inner Seal Ø min-max mm	Range Doble Seal Ø min-max mm	Thread Length TL mm	Thread Ø TD mm	Spanner Width		Outer Ø D mm	max. Height H mm	Average Air Flow for ΔP = 70 mbar l/h	Water Intrusion Pressure bar	Part Number			Packing Unit
					SW Cap mm	SW Body mm					RAL 7035 light grey	RAL 7001 grey	RAL 9005 black	
M12x1,5	2,0 - 6,0	-	8,0	12,0	19	19	21,9	25,5	25	0,1	BMVG-1SR	BMVG-0SR	BMVG-2SR	100
	4,0 - 8,0										3,0 - 5,0	BMVG-1S	BMVG-0S	
M16x1,5	2,0 - 6,0	-	10,0	16,0	19	19	21,9	25,5	25	0,1	BMVGD-1SR	BMVGD-0SR	BMVGD-2SR	50
	4,0 - 8,0										3,0 - 5,0	BMVGD-1S	BMVGD-0S	
M20x1,5	5,0 - 9,0	-	10,0	20,0	24	24	27,0	30,0	40	0,1	BMVG-11R	BMVG-01R	BMVG-21R	50
	6,0 - 12,0										5,0 - 8,5	BMVGD-11	BMVGD-01	

Thread Type **PG** acc. to DIN 40430

Size	Clamping Inner Seal Ø min-max mm	Range Doble Seal Ø min-max mm	Thread Length TL mm	Thread Ø TD mm	Spanner Width		Outer Ø D mm	max. Height H mm	Average Air Flow for ΔP = 70 mbar l/h	Water Intrusion Pressure bar	Part Number			Packing Unit
					SW Cap mm	SW Body mm					RAL 7035 light grey	RAL 7001 grey	RAL 9005 black	
PG 9	2,0 - 6,0	-	8,0	15,2	19	19	21,9	25,5	25	0,1	BSVG-12R	BSVG-02R	BSVG-22R	50
	4,0 - 8,0										3,0 - 5,0	BSVGD-12	BSVGD-02	
PG 11	2,0 - 6,0	-	8,0	18,6	22	19	24,9	25,0	25	0,1	BSVG-13R	BSVG-03R	BSVG-23R	50
	4,0 - 8,0										3,0 - 5,0	BSVGD-13	BSVGD-03	
PG 13,5	5,0 - 9,0	-	9,0	20,4	24	24	27,0	30,0	40	0,1	BSVG-14R	BSVG-04R	BSVG-24R	50
	6,0 - 12,0										5,0 - 8,5	BSVGD-14	BSVGD-04	

# Ventilation Plugs Polyamide

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### Ventilation plugs

- Balances pressure differences between inner housing and the outside environment.
- Prevents damages according to pressure differences.
- Prevents the formation of water condensation in tightly-sealed standard housings.
- Membrane properties: hydrophobic, oleophobic.

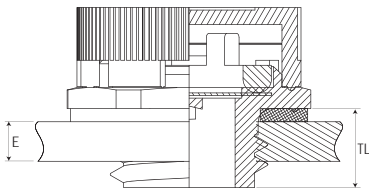
### Technical Details

Material	Body	PA 6 (Polyamide 6)	
	Vent Membran	Acrylic co-polymer on nylon-support	
	O-Ring	NBR	
Protection Class	IP 68 / IP 67 (for water intrusion pressure 0.1 bar)		
Flammability	V2 according to UL94		
Operating Temperature	Permanent	-20 °C to +100 °C	Intermittent -30 °C to +150 °C
Thread Type	<ul style="list-style-type: none"> <li>• Metric EN 60423</li> <li>• without thread</li> </ul>		
Accessories	<ul style="list-style-type: none"> <li>• Lock nuts</li> <li>• Gaskets</li> </ul>		
Remarks	• We recommend the use of lock nuts and gaskets to ensure IP rating for rough surfaces or through holes.		



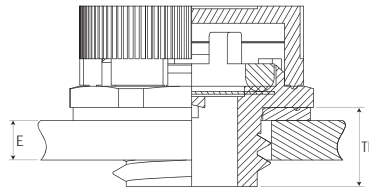
### PLASTIC VENTILATION PLUGS ASSEMBLING INSTRUCTIONS

Threaded Enclosure  
Flat Gasket Application



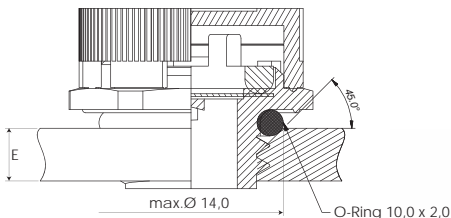
E= min. 3,0 mm  
Flat Gasket (Ø 18,0 x Ø 10,8 x 1,0) mm

Non Threaded Enclosure  
Flat Gasket Application



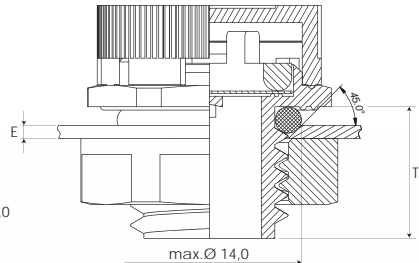
E= max. 1,0 mm for 6,0 mm plug thread lenght  
E= max. 5,0 mm for 10,0 mm plug thread lenght

Threaded Enclosure  
O-Ring Application

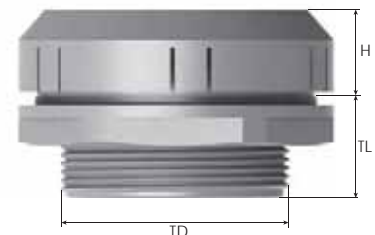
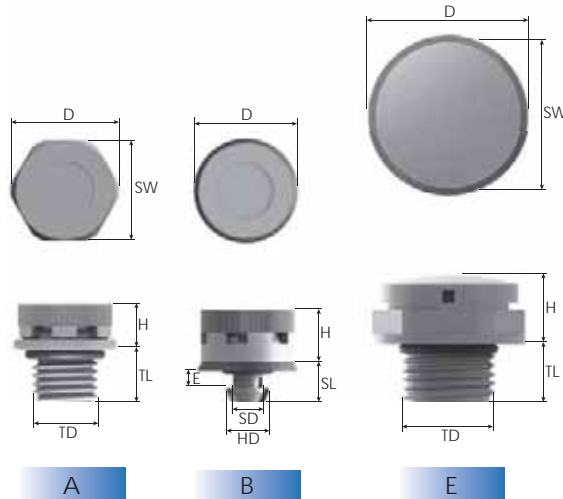


E= min. 4,0 mm  
Recommended Plug and Lock Nut  
tightening troque 0,5 - 1,0 Nm  
for all types

Non Threaded Enclosure  
O-Ring Application



E= max. 1,0 for 6,0 mm Plug thread lenght  
E= max. 5,0 for 10,0 mm Plug thread lenght



## Ventilation Plugs Polyamide

Thread Type METRIC acc. to EN 60423

Size	Thread Length TL mm	Thread Ø TD mm	Spanner Width SW mm	Outer Ø D mm	max. Height H mm	Average Air Flow for ΔP = 70 mbar l/h	Water Intrusion Pressure bar	Design Type	Part Number			Packing Unit			
									RAL 7035 light grey	RAL 7001 grey	RAL 9005 black				
M12x1,0	6,6	12,0	17	18,5	7,6	16	0,9	A	SBVPA-11	SBVPA-01	SBVPA-21	500			
						25	0,5		MBVPA-11	MBVPA-01	MBVPA-21				
						120	0,2		HBVPA-11	HBVPA-01	HBVPA-21				
						300	0,1		UHBVPA-11	UHBVPA-01	UHBVPA-21				
M12x1,5	6,0	12,0	17	18,5	7,6	16	0,9	A	SBVPA-11	SBVPA-01	SBVPA-21	500			
						25	0,5		MBVPA-11	MBVPA-01	MBVPA-21				
	10,0		24	26,0	11,7	11,7	0,9	E	SBVPA-11L	SBVPA-01L	SBVPA-21L				
									120	0,5	MBVPA-11L		MBVPA-01L	MBVPA-21L	
	6,0		17	18,5	7,6	7,6	0,2	A	SBVPA-11L	SBVPA-01L	SBVPA-21L				
									300	0,1	UHBVPA-11L		UHBVPA-01L	UHBVPA-21L	
	10,0		24	26,0	11,7	11,7	0,2	E	SBVPA-11L	SBVPA-01L	SBVPA-21L				
									750	0,1	UHBVPA-11L		UHBVPA-01L	UHBVPA-21L	
	M16x1,5		10,0	16,0	24	26,0	11,7	42	0,9	E	SBVPA-11		SBVPA-01	SBVPA-21	500
								120	0,5		MBVPA-11		MBVPA-01	MBVPA-21	
								450	0,2		HBVPA-11		HBVPA-01	HBVPA-21	
								750	0,1		UHBVPA-11		UHBVPA-01	UHBVPA-21	
M20x1,5	10,0	20,0	24	26,0	11,7	42	0,9	E	SBVPA-11	SBVPA-01	SBVPA-21	500			
						120	0,5		MBVPA-11	MBVPA-01	MBVPA-21				
						450	0,2		HBVPA-11	HBVPA-01	HBVPA-21				
						750	0,1		UHBVPA-11	UHBVPA-01	UHBVPA-21				
M40x1,5	18,0	40,0	-	55,3	15,5	120	0,9	F	SBVPA-18S	SBVPA-08S	SBVPA-28S	1			
						375	0,5		MBVPA-18S	MBVPA-08S	MBVPA-28S				
						1350	0,2		HBVPA-18S	HBVPA-08S	HBVPA-28S				
						2200	0,1		UHBVPA-18S	UHBVPA-08S	UHBVPA-28S				

wall thickness (E) : 2,5 mm

Size	Snap Length SL mm	Snap Ø SD mm	Hole max. Ø HD mm	Outer Ø D mm	max. Height H mm	Average Air Flow for ΔP = 70 mbar l/h	Water Intrusion Pressure bar	Design Type	Part Number			Packing Unit
									RAL 7035 light grey	RAL 7001 grey	RAL 9005 black	
Quick Fit 5,5	7,5	5,5	6,4	17,0	9,3	16	0,9	B	SBVQ-M11	SBVQ-M01	SBVQ-M21	500
						25	0,5		MBVQ-M11	MBVQ-M01	MBVQ-M21	
						120	0,2		HBVQ-M11	HBVQ-M01	HBVQ-M21	
						300	0,1		UHBVQ-M11	UHBVQ-M01	UHBVQ-M21	

# Ventilation Glands Brass

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### Cable glands with integrated ventilation

- Balances pressure differences between inner housing and the outside environment.
- Prevents damages according to pressure differences.
- Prevents the formation of water condensation in tightly-sealed standard housings.
- Advantages of cable gland and pressure balance element combined in one product.
- Properties of the ventilation membrane stay the same independent of cable diameter and torque.
- Membrane properties: hydrophobic, oleophobic.
- For metal machines and housings.
- For industrial applications in harsh environments.
- Easy assembly: install cable gland - insert cable - tighten cap.
- High quality strain relief and sealing, reliable performance for standard industrial applications.
- Up-to-date international approvals.

### Technical Details

<b>Material</b>	<b>Body</b>	Brass, Nickel plated	
	<b>Cap</b>	Brass, Nickel plated	
	<b>Seal</b>	CR (Chloroprene Rubber)	
	<b>Clamp. Insert</b>	PA 6 (Polyamide 6)	
	<b>Vent Membran</b>	PTFE	
	<b>O-Ring</b>	NBR	
<b>Protection Class</b>	IP 66 IP 67		
<b>Flammability</b>	V2 according to UL94		
<b>Operating Temperature</b>	<b>Permanent</b>	-20 °C to +100 °C	<b>Intermittent</b>
			-30 °C to +150 °C
<b>Cable Type</b>	Non armoured		
<b>Thread Type</b>	• Metric EN 60423		
	• PG DIN 40430		
	• Other thread types also available upon request.		
<b>Accessories</b>	• Lock nuts		
	• Dome plugs		
	• Gaskets		
<b>Remarks</b>	• Manufactured according to DIN EN 62444/50262.		
	• We recommend the use of lock nuts and gaskets to ensure IP rating for rough surfaces or through holes.		
	• Some approvals do not cover all sizes.		
	<b>Note:</b> Applications of most cable glands don't require same parameters applied to tests. For applications strictly acc. to the approval definitions please consult data sheet.		

### Approvals

	Certificate Number	Standards
	40040032	acc. to DIN EN 62444
	E199260	acc. to UL514

Some approvals do not cover all sizes. For more approvals: see our webpage.



## Ventilation Glands Brass



Thread Type **METRIC** acc. to EN 60423

Size	Clamping Range		Thread Length TL mm	Thread Ø TD mm	Spanner Width		Outer Ø D mm	max. Height H mm	Average Air Flow for $\Delta P = 70$ mbar l/h	Water Intrusion Pressure bar	Part Number	Packing Unit
	Inner Seal Ø min-max mm	Double Seal Ø min-max mm			SW Cap mm	SW Body mm						
M12x1,5	2,0 - 6,0	-	6,0	12,0	17	17	18,9	30,5	25	0,1	BMBCVG-0SR BMBCVG-0S BMBDVG-0S	50
	4,0 - 8,0											
M16x1,5	2,0 - 6,0	-	5,0	16,0	17	17	18,9	27,0	25	0,1	BMBCVG-01R BMBCVG-01LR BMBCVG-01 BMBDVG-01 BMBDVG-01L BMBDVG-01L	50
	3,0 - 7,0		8,0		20	20	22,0	33,5				
	4,0 - 8,0		5,0		17	17	18,9	27,0	25			
	5,0 - 10,0		8,0		20	20	22,0	33,5	35			
M20x1,5	5,0 - 9,0	-	8,0	20,0	22	22	24,5	29,5	50	0,1	BMBCVG-02R BMBCVG-02 BMBDVG-02	50
	6,0 - 12,0											

Thread Type **PG** acc. to DIN 40430

Size	Clamping Range		Thread Length TL mm	Thread Ø TD mm	Spanner Width		Outer Ø D mm	max. Height H mm	Average Air Flow for $\Delta P = 70$ mbar l/h	Water Intrusion Pressure bar	Part Number	Packing Unit
	Inner Seal Ø min-max mm	Double Seal Ø min-max mm			SW Cap mm	SW Body mm						
PG 7	2,0 - 6,0	-	8,0	12,5	17	17	18,9	30,5	25	0,1	BSBCVG-01R BSBCVG-01 BSBDVG-01	50
	4,0 - 8,0											
PG 9	2,0 - 6,0	-	6,0	15,2	17	17	18,9	27,0	25	0,1	BSBCVG-02R BSBCVG-02 BSBDVG-02	50
	4,0 - 8,0											
PG 11	3,0 - 7,0	-	8,0	18,6	20	20	22,0	33,5	35	0,1	BSBCVG-03R BSBCVG-03 BSBDVG-03	50
	5,0 - 10,0											
PG 13,5	5,0 - 9,0	-	6,5	20,4	22	22	24,5	29,5	50	0,1	BSBCVG-04R BSBCVG-04 BSBDVG-04	50
	6,0 - 12,0											



# Ventilation Plugs Metal

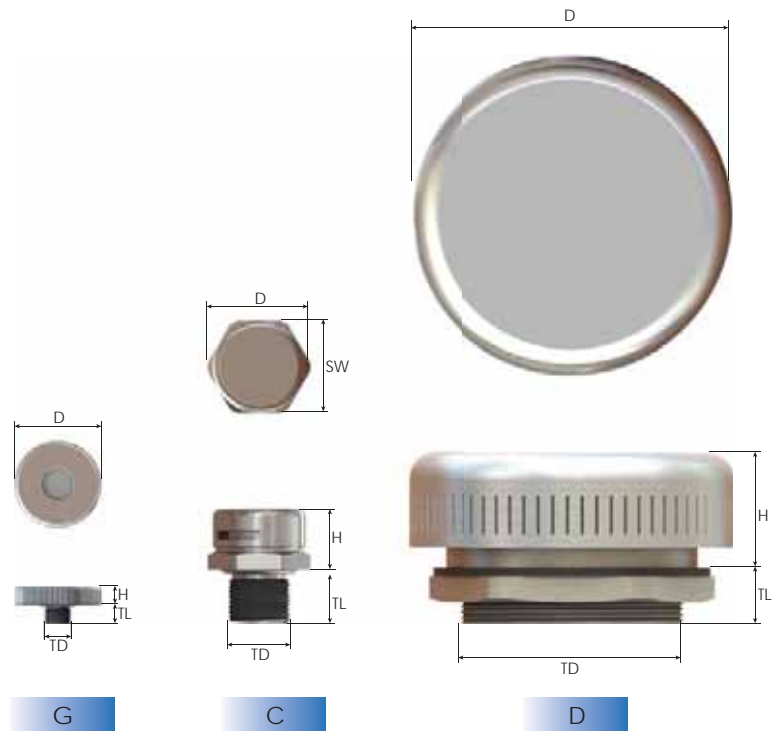
## Ventilation plugs for pressure balancing

- Balances pressure differences between inner housing and the outside environment.
- Prevents damages according to pressure differences.
- Prevents the formation of water condensation in tightly-sealed standard housings.
- Membrane properties: hydrophobic, oleophobic.
- For metal machines and housings.
- For industrial applications in harsh environments.

## Technical Details

Material	Body	Stainless steel / Aluminium	
	Vent Membran	Acrylic co-polymer on nylon-support	
	O-Ring	NBR	
Protection Class	IP 68 / IP 67 (for water intrusion pressure 0.1 bar)		
Operating Temperature	Permanent	-20 °C to +100 °C	Intermittent
			-30 °C to +150 °C
Thread Type	<ul style="list-style-type: none"> <li>• Metric EN 60423</li> <li>• PG DIN 40430</li> <li>• Other thread types also available upon request.</li> </ul>		
Accessories	<ul style="list-style-type: none"> <li>• Lock nuts</li> <li>• Gaskets</li> </ul>		
Remarks	<ul style="list-style-type: none"> <li>• We recommend the use of lock nuts and gaskets to ensure IP rating for rough surfaces or through holes.</li> </ul>		

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## Ventilation Plugs Metal

Thread Type **METRIC** acc. to EN 60423 (Stainless Steel)

Size	Thread Length TL mm	Thread Ø TD mm	Spanner Width SW mm	Outer Ø D mm	max. Height H mm	Average Air Flow for ΔP = 70 mbar l/h	Water Intrusion Pressure bar	Design Type	Part Number	Packing Unit
M12x1,0	10,0	12,0	17	18,8	11,0	16	0,9	C	SBBVP-01S	50
						25	0,5		MBBVP-01S	
						120	0,2		HBBVP-01S	
						300	0,1		UHBBVP-01S	
M12x1,5	6,0	12,0	17	18,8	11,0	16	0,9	C	SBBVP-01	50
	10,0					25	0,5		MBBVP-01	
	6,0					120	0,2		MBBVP-01L	
	10,0					300	0,1		HBBVP-01	
	6,0								HBBVP-01L	
	10,0								UHBBVP-01	
M16x1,5	6,0	16,0	18	18,8	12,0	16	0,9	C	SBBVP-02	50
					16,0	25	0,5		SBBVP-02L	
					12,0	120	0,2		MBBVP-02	
					16,0	300	0,1		MBBVP-02L	
					12,0				HBBVP-02	
					16,0				HBBVP-02L	
M20x1,5	6,0	20,0	22	24,5	13,0	16	0,9	C	SBBVP-03	50
					17,0	25	0,5		SBBVP-03L	
					13,0	120	0,2		MBBVP-03	
					17,0	300	0,1		MBBVP-03L	
					13,0				HBBVP-03	
					17,0				HBBVP-03L	
M40x1,5	10,0	40,0	-	58,0	20,7	120	0,9	D	SBBVPX-05	1
						375	0,5		MBBVPX-05	
						1350	0,2		HBBVPX-05	
						2200	0,1		UHBBVPX-05	

Thread Type **METRIC** acc. to EN 60423 (Aluminium)

Size	Thread Length TL mm	Thread Ø TD mm	Spanner Width SW mm	Outer Ø D mm	max. Height H mm	Average Air Flow for ΔP = 70 mbar l/h	Water Intrusion Pressure bar	Design Type	Part Number	Packing Unit
M4x0,7	3	4,0		12,3	2,7	4	0,9	G	SBAVP-01	50
						7	0,5		MBAVP-01	
						35	0,2		HBAVP-01	
						100	0,1		UHBAVP-01	
M8x0,75	8	8,0		12,3	2,7	4	0,9	G	SBAVP-02	50
						7	0,5		MBAVP-02	
						35	0,2		HBAVP-02	
						100	0,1		UHBAVP-02	

Thread Type **PG** acc. to DIN 40430 (Stainless Steel)

Size	Thread Length TL mm	Thread Ø TD mm	Spanner Width SW mm	Outer Ø D mm	max. Height H mm	Average Air Flow for ΔP = 70 mbar l/h	Water Intrusion Pressure bar	Design Type	Part Number	Packing Unit
PG 7	10,5	12,5	17	18,8	11,0	16	0,9	C	SBBVP-0S	50
						25	0,5		MBBVP-0S	
						120	0,2		HBBVP-0S	
						300	0,1		UHBBVP-0S	

## Further Accessories for Ventilation Glands & Plugs

### Dome Plugs

#### Dome Plugs



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### Lock Nuts

#### Plastic Lock Nuts



22-23

#### Metal Lock Nuts



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### Gaskets

#### Gaskets



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Car Head Lamps



Led Lighting & Wall Washer Lighting



Control Cabinets



Power Supply



Outdoor Lighting



Solar Panels

