



**GOYEN**

# THREADED VALVES

# GOYEN 'T' SERIES

## PULSE JET VALVES



T Series

### DESCRIPTION

High performance diaphragm valve with threaded ports. Available with integral pilot or as remotely piloted valve. Outlet at 90° to inlet.

### SUITABLE FOR

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations, including bag filters, cartridge filters and envelope filters, ceramic filters and sintered metal fibre filters.

### CONSTRUCTION

**Body:** Aluminium (diecast)

**Ferrule:** 305 SS

**Armature:** 430FR SS

**Seals:** Nitrile or Viton

**Spring:** 304 SS

**Screws:** 302 or 304 SS

**Diaphragm Seat:** PA-66 (standard), Viton or Nitrile coated mild steels, Nitrile, Viton or High Density PE

Refer to Q Series Solenoid product data sheet for solenoid construction details.

### OPERATION

**Recommended**

**on-time range:** 50–500 ms

**Recommended time**

**between pulses:** 1 minute or greater

### MAINTENANCE

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled.

Diaphragm and pilot inspection should be conducted annually.

### APPROVALS

- Atex II 2D Mechanical (RCA only)
- CSA [C, US] [C22.2 No 139–10 and UL 429:2009] (CA & RCA)
- C-Tick (CA)
- EMC 2004/108/EC (CA)
- Low Voltage Directive 2006/95/EC (CA)

### INSTALLATION

1. Prepare supply and blowtube pipes to suit valve specification. Avoid installing valves underneath the tank.
2. Ensure tank and pipes are free from dirt, rust or other particulate.
3. Ensure supply air is clean and dry.
4. Mount valves to inlet pipes and blowtube to valves, ensuring no excess thread sealant can enter the valve itself.
5. Make electrical connections to solenoid or connect RCA pilot port to pilot valve (RCA valves only).
6. Apply moderate pressure to system and check for installation leaks.
7. Fully pressurise system.
8. Test fire and listen for proper actuation and crisp pulse noise.

### WEIGHTS

SIZE	INTEGRAL PILOT (CA) kg (lb)	REMOTE PILOT (RCA) kg (lb)	SIZE	INTEGRAL PILOT (CA) kg (lb)	REMOTE PILOT (RCA) kg (lb)
10	NA	0.06 (0.14)	50	2.89 (6.38)	2.68 (5.92)
35	1.04 (2.28)	0.83 (1.83)	62	3.31 (7.30)	3.09 (6.82)
45	1.50 (3.30)	1.28 (2.83)	76	4.77 (10.52)	4.56 (10.04)

### MAINTENANCE KITS

MODEL	NITRILE	VITON	LOW TEMPERATURE –60°C (–76°F) min.	INCLUDES
RCA10-6T	K1001	K1002	NA	Diaphragm kits include main and secondary diaphragms (where required) and all springs.
CA/RCA35T	K3500	K3501	K3502	
CA/RCA45T	K4502	K4503	K4522	
CA/RCA50/62T	K5004	K5000	NA	
CA/RCA76T	K7600	K7601	NA	o-ring, armature assembly, armature spring, ferrule
Pilot repair kit	K0380	K0384	NA	

### PRODUCT CHARACTERISTICS AND PERFORMANCE

NOM. SIZE	NOMINAL PORT SIZE		NUMBER OF DIAPHRAGMS	FLOW	
	mm	in		KV	CV
10	6	¼	1	2.5	2.9
35	40	1.5	1	36	42
45	40	1.5	2	44	51
50	50	2	2	76	88
62	62	2.5	2	91	106
76	76	3	2	144	167

**Pressure Range:** 30(5)–860(125) kPa(psi)

**Temperature Range:** Nitrile Seals: –40°C (–40°F) to 82°C (179.6°F)  
Viton Seals: –29°C (–20.2°F) to 232°C (449.6°F)

# GOYEN 'T' SERIES

## PULSE JET VALVES

### ORDER CODE

**RCA 35 T 0 1 0 301**

#### Pilot type

RCA=remotely piloted  
CA=integral pilot

#### Valve size

35 mm\*  
45 mm\*  
50 mm  
62 mm  
76 mm

#### Pilot size

0=1/8" or CA  
1=1/4" (Not available on 35T)

#### Solenoid type

Coil type for CA only.  
See the *RCA3 Solenoid Pilot Valves*  
brochure for coil options.

#### Diaphragm material

0=Nitrile  
1=Viton  
3=EPDM (4ST)

#### Thread type

0=NPT or CA  
1=RC  
2=G

\*Note that the 35 & 45 share the same port sizes.

### Order Code RCA10-6T Series

RCA10-6T/645 (1/4" NPT IN/OUT port, 1/8" NPT pilot port)

RCA10-6T/669 (1/4" RC IN/OUT port, 1/8" RC pilot port)

**Examples:** CA50T010-300

2" threaded port valve with 2" RC port threads, nitrile seals and 200/240 VAC integral pilot with DIN socket terminals.

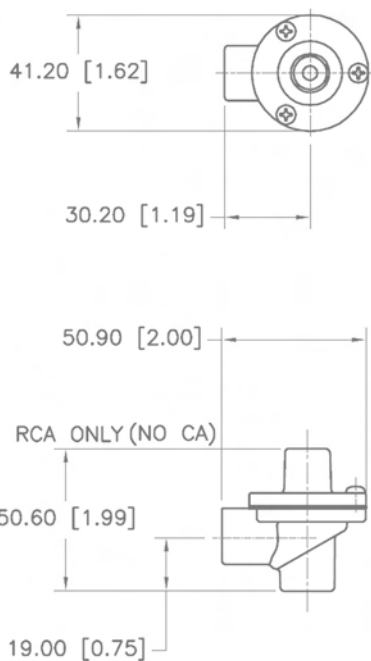
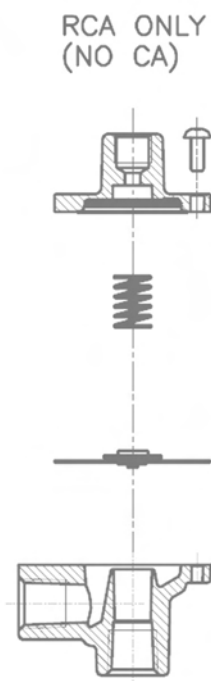
RCA50T001

2" threaded port valve with 1/8" NPT remote pilot port, 2" NPT port threads and viton seals.

### DIMENSIONS

(Dimensions in mm and [inches])

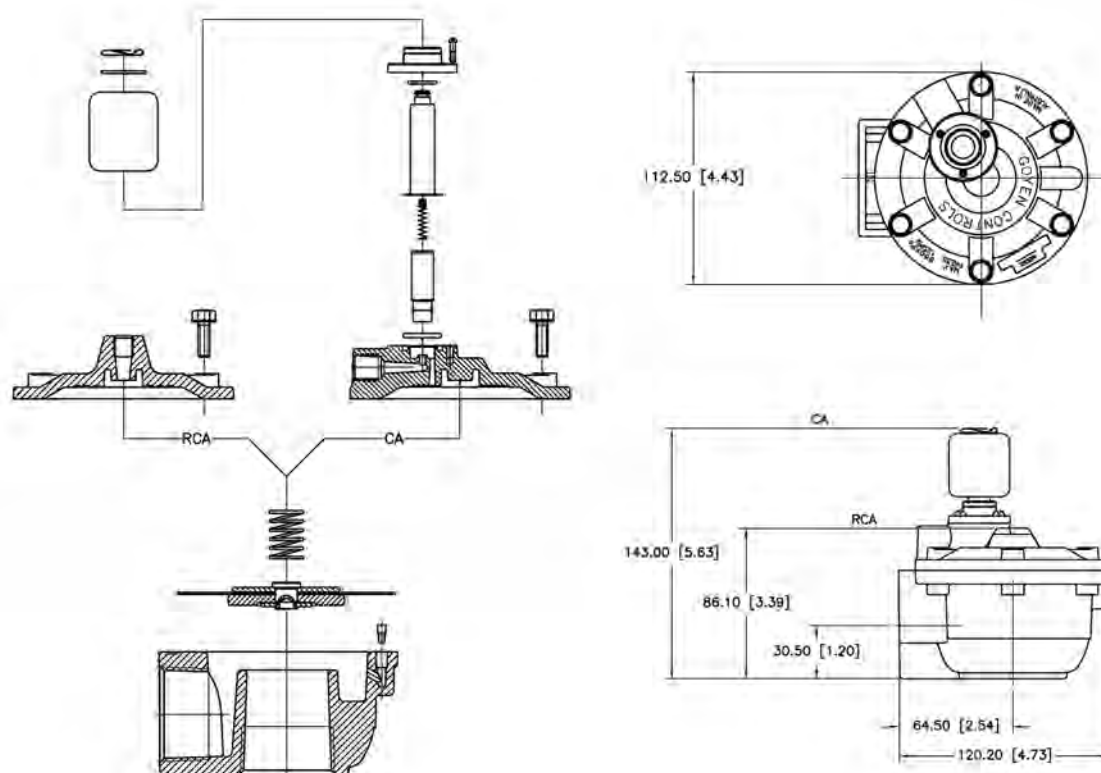
#### RCA10-6T



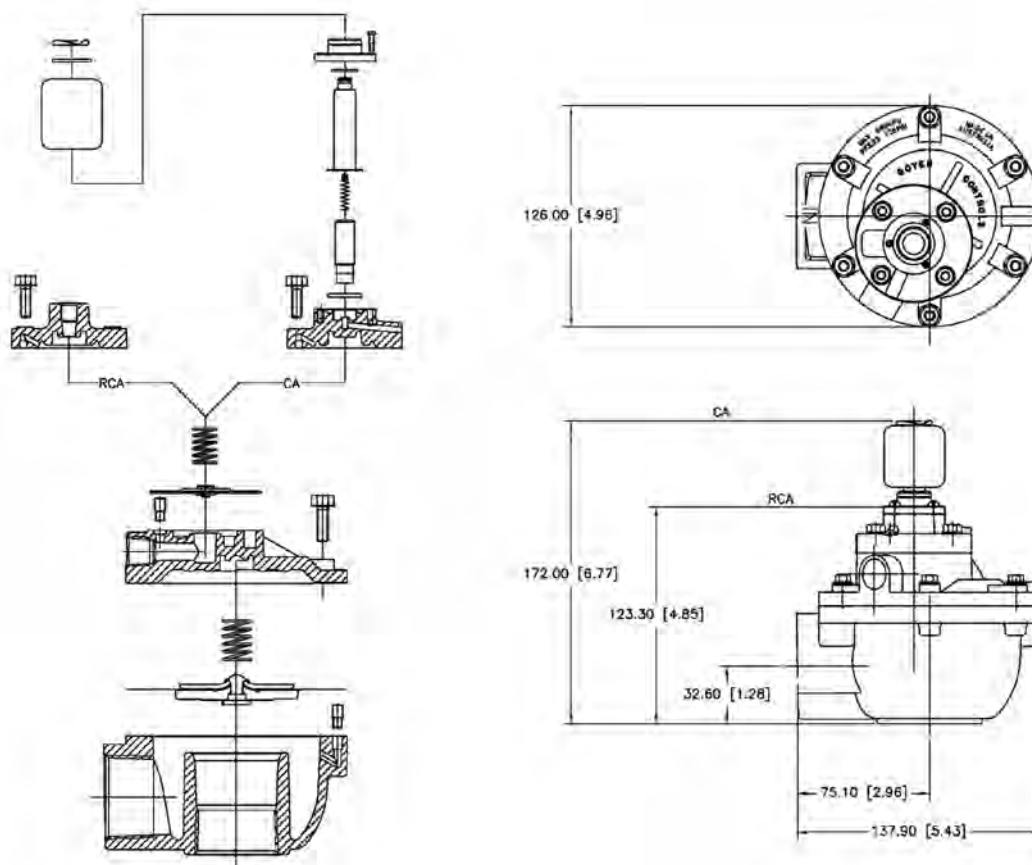
# GOYEN 'T' SERIES

PULSE JET VALVES

CA/RCA35T



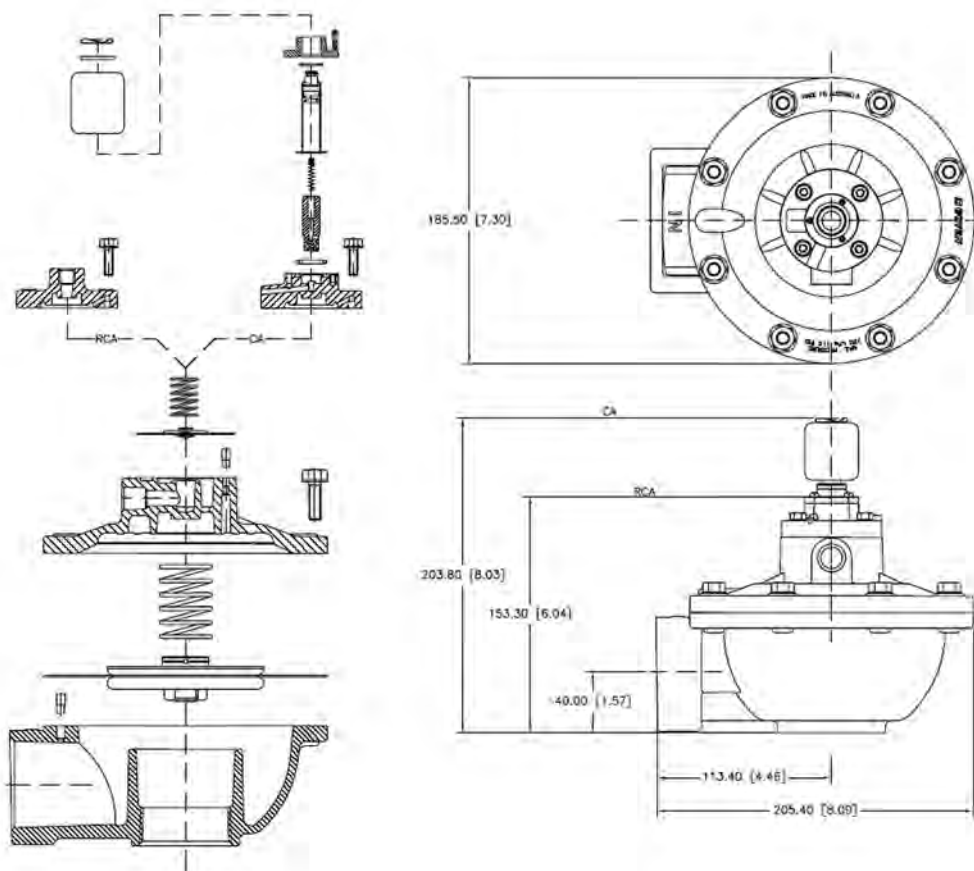
CA/RCA45T



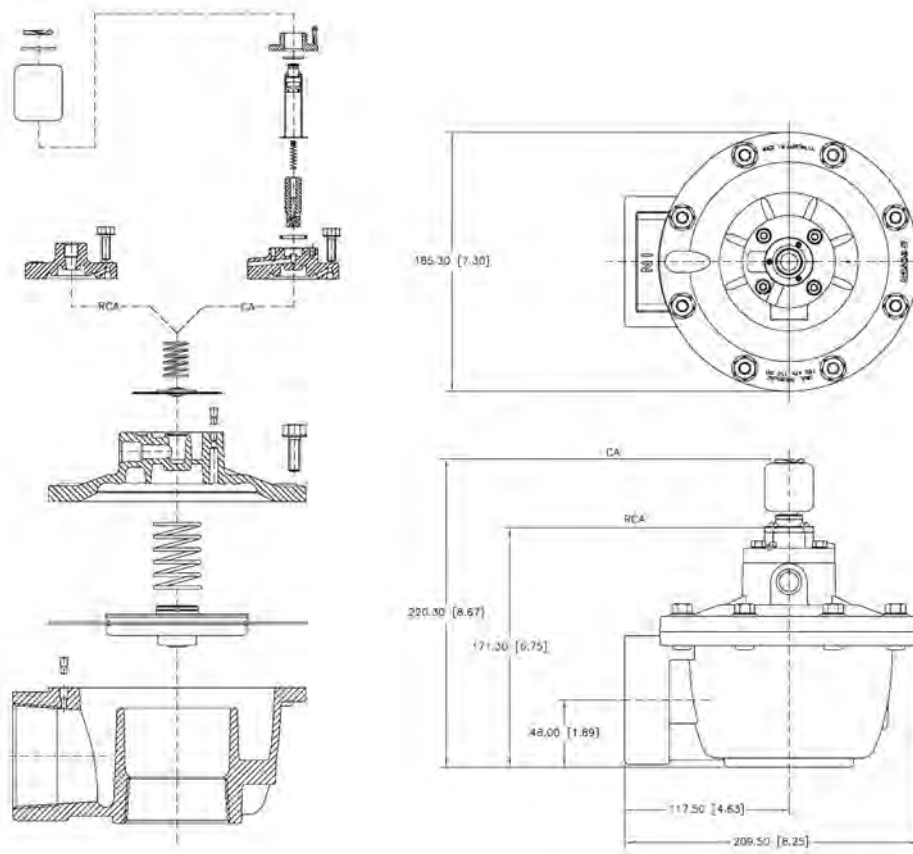
# GOYEN 'T' SERIES

PULSE JET VALVES

CA/RCA50T



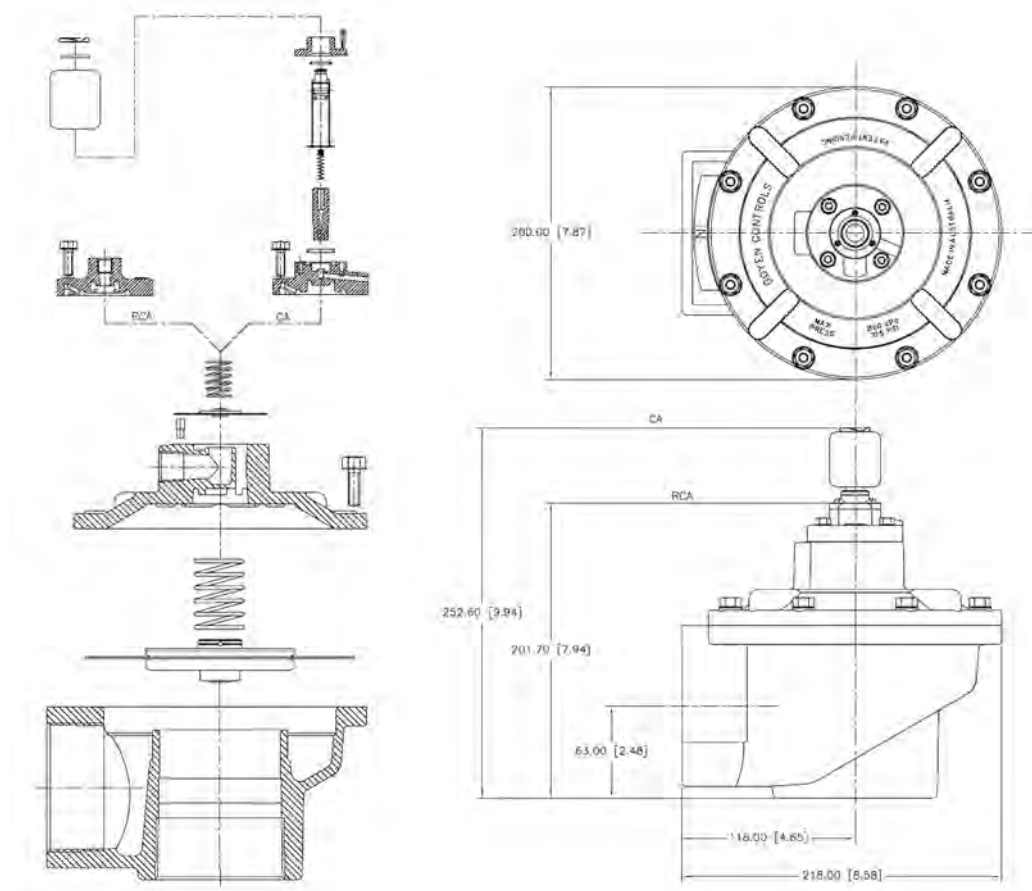
CA/RCA62T



# GOYEN 'T' SERIES

PULSE JET VALVES

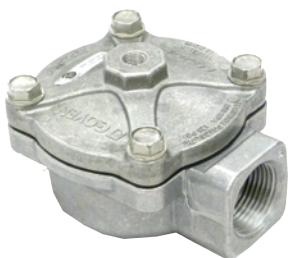
CA/RCA76T





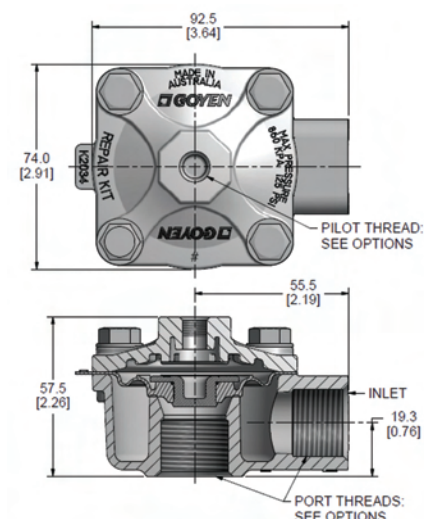
# GOYEN RCAC20T4

## REVERSE PULSE JET VALVES



### DIMENSIONS

(Dimensions in mm and [inches])



### DESCRIPTION

High-performance diaphragm valve with threaded ports. Equipped with 'Shockwave' springless diaphragm. The 4 series valves are available as remote pilot valves and may be converted to an integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet.

### SUITABLE FOR

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations, including bag filters, cartridge filters and envelope filters, ceramic filters and sintered metal fibre filters.

### CONSTRUCTION

**Body:** Aluminium (diecast)

**Screws:** 304 Stainless steel

**Diaphragm:** Proprietary high-performance engineering thermoplastic Elastomer or Viton

### OPERATION

**Recommended on-time range:**

50 to 500 ms

**Recommended time between**

**pulses:** 1 minute or greater

### MAINTENANCE

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled.

Diaphragm and pilot unit inspection should be conducted annually.

### APPROVALS

The RCAC20T4 meets the requirements of the European Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** We recommend using Schedule 40 pipe. Thickness OD is as shown below.

SIZE	OD mm	OD inches
3/4"	26.67	1.05

### WEIGHTS

VALVE	kg (lb)
RCAC20T4	0.31 [0.68]

### MAINTENANCE KITS

MODEL	SHOCKWAVE	VITON
Diaphragm Kit RCAC20T4	K2034	K2033

### PRODUCT CHARACTERISTICS AND PERFORMANCE

NOMINAL PORT SIZE mm (in.)	NO. OF DIAPH.	FLOW KV (CV)	PRESSURE RANGE kPa (psi)	TEMPERATURE RANGE °C (°F)	
				SHOCKWAVE	VITON
20 (3/4)	1	14 (17)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Examples:

RCAC20T4012

3/4" RC threaded valve with 1/8" RC pilot port thread, Shockwave diaphragm.

### Note:

1/8 Pilot available in NPT, RC and G Thread.

1/4 Pilot is only available in G Thread.

### ORDER CODE

RCAC20T4	0	1	2
Pilot size	0=1/8"	1=1/4"	
Diaphragm material			1=Viton 2=Shockwave
Thread type			0=NPT 1=RC 2=G

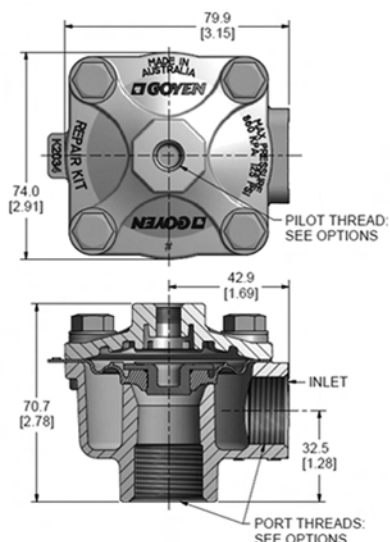
# GOYEN RCAC20ST4

## REVERSE PULSE JET VALVES



### DIMENSIONS

(Dimensions in mm and [inches])



### DESCRIPTION

High-performance diaphragm valve with short threaded ports. Equipped with 'Shockwave' springless diaphragm. The 4 series valves are available as remote pilot valves and may be converted to an integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet.

### SUITABLE FOR

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations, including bag filters, cartridge filters and envelope filters, ceramic filters and sintered metal fibre filters.

### CONSTRUCTION

**Body:** Aluminium (diecast)

**Screws:** 304 Stainless steel

**Diaphragm:** Proprietary high-performance engineering thermoplastic Elastomer or Viton

### OPERATION

**Recommended on-time range:** 50 to 500 ms

**Recommended time between pulses:** 1 minute or greater

### MAINTENANCE

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled.

Diaphragm and pilot unit inspection should be conducted annually.

### APPROVALS

The RCAC20ST4 meet the requirements of the European Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** We recommend using Schedule 40 pipe. Thickness OD is as shown below.

SIZE	OD mm	OD inches
3/4"	26.67	1.05

### WEIGHTS

VALVE	kg (lb)
RCAC20ST4	0.30 (0.66)

### MAINTENANCE KITS

MODEL	SHOCKWAVE	VITON
Diaphragm Kit RCAC20ST4	K2034	K2033

### PRODUCT CHARACTERISTICS AND PERFORMANCE

NOMINAL PORT SIZE mm (in.)	NO. OF DIAPH.	FLOW KV (CV)	PRESSURE RANGE kPa (psi)	TEMPERATURE RANGE °C (°F)	
				SHOCKWAVE	VITON
20 [3/4]	1	14 [17]	30(5) to 860(125)	-40[-40] to 82(179.6)	-29[-20.2] to 232(449.6)

### Examples:

RCAC20ST4012  
3/4" RC Short threaded valve with  
1/8" RC pilot,  
3/4" RC port threads, Shockwave  
diaphragm.

### Note:

1/8 Pilot available in NPT, RC and G Thread.  
1/4 Pilot is only available in G Thread.

### ORDER CODE

<b>RCAC20ST4</b>	<b>0</b>	<b>1</b>	<b>2</b>
<b>Pilot size</b>			
0=1/8"			
1=1/4"			
			<b>Diaphragm material</b>
			1=Viton
			2=Shockwave
			<b>Thread type</b>
			0=NPT
			1=RC
			2=G



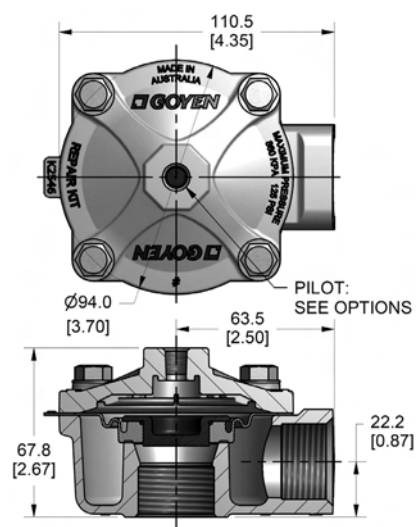
# GOYEN RCAC25T4

## REVERSE PULSE JET VALVES



### DIMENSIONS

(Dimensions in mm and [inches])



### DESCRIPTION

High-performance diaphragm valve with threaded ports. Equipped with 'Shockwave' springless diaphragm. The 4 series valves are available as remote pilot valves and may be converted to integral pilot using either the RCA3DM or RCA3PV screw-in pilots. Outlet is at 90° to inlet.

### SUITABLE FOR

Dust collector applications, in particular for reverse pulse jet filter cleaning and its variations, including bag filters, cartridge filters and envelope filters, ceramic filters and sintered metal fibre filters.

### CONSTRUCTION

**Body:** Aluminium (diecast)

**Screws:** 304 Stainless steel

**Diaphragm:** Proprietary high-performance engineering thermoplastic Elastomer or Viton

### OPERATION

**Recommended on-time range:** 50 to 500 ms

**Recommended time between pulses:** 1 minute or greater

### MAINTENANCE

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled.

Diaphragm and pilot unit inspection should be conducted annually.

### APPROVALS

The RCAC25T4 meets the requirements of the European Low Voltage Directive 2006/95/EC, when fitted with the RCA3PV pilot.

**Please Note:** We recommend using Schedule 40 pipe. Thickness OD is as shown below.

SIZE	OD mm	OD inches
1"	33.4	1.315

### WEIGHTS

VALVE	kg (lb)
RCAC25T4	0.56 (1.23)

### MAINTENANCE KITS

MODEL	SHOCKWAVE	VITON
Diaphragm Kit RCAC25T4	K2546	K2551

### PRODUCT CHARACTERISTICS AND PERFORMANCE

NOMINAL PORT SIZE mm (in.)	NO. OF DIAPH.	FLOW KV (CV)	PRESSURE RANGE kPa (psi)	TEMPERATURE RANGE °C (°F)	
				SHOCKWAVE	VITON
25 (1)	1	24 (27)	30(5) to 860(125)	-40(-40) to 82(179.6)	-29(-20.2) to 232(449.6)

### Examples:

RCAC25T4012

1" RC threaded port valve with 1/8" RC pilot port threads, Shockwave diaphragm.

### Note:

1/8" Pilot available in NPT, RC and G Thread.

1/4" Pilot is only available in G Thread.

### ORDER CODE

<b>RCAC25T4</b>	<b>0</b>	<b>1</b>	<b>2</b>
<b>Pilot size</b>			
0=1/8"			
1=1/4"			
		<b>Diaphragm material</b>	
		1=Viton	
		2=Shockwave	
		<b>Thread type</b>	
		0=NPT	
		1=RC	
		2=G	

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# DIAPHRAGM SERVICE KITS

FOR DELETED VALVES

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## MAINTENANCE KITS

MODEL	NITRILE	VITON	LOW TEMPERATURE -60°C (-76°F) min.	INCLUDES
CA/RCA20T	K2000	K2007	NA	Diaphragm kits include main and secondary diaphragms (where required) and all springs.
CA/RCA25T	K2501	K2503	K2504	
CA/RCA32T	K2500	NA	NA	
CA/RCA40T	K4000	NA	NA	



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