PREMIUM double diaphragm pumps 1:1

Easy-maintenance

Premium pumps

with extremely low operating costs and long service life

Industries:

Flexographic printing Gravure printing Painting industry Timber industry Chemical industry **1/2**" Max. 60 l/min

tim[®] PRO





www.timmer-pumps.com/en/ double_diaphragm_pumps_1to1/







Spring-loaded valve balls





PREMIUM double diaphragm pumps PTI-MEM1060-VA

Order no.	Туре	Alignment of suction pipe	Alignment of pressure pipe	Material de- sign	ATEX
53507699	PTI-MEM1060-VA-TF-VA-VA-VIEX-AL-iHZ	Forward	Forward	VA	\checkmark
53507756	PTI-MEM1060I-VA-TF-VA-VA-VIEX-AL-iHZ) Downward	Upward	VA	~
53507812	PTI-MEM1060V-VA-TF-TF-VA-VIEX-AL-iHZ	Forward	Forward	VA	\checkmark
53507834	PTI-MEM1060VI-VA-TF-TF-VA-VIEX-AL-iHZ) Downward	Upward	VA	\checkmark

The tim®PRO series pumps have been successfully used for many years as process pumps and transfer pumps in the paint supply sector and in the printing machine industry.

They are characterized in particular by their process reliability, easy maintenance, small and compact design, good workmanship and long service life. These variants are delivered with an intelligent IoT-enabled sensor, which allows real-time testing of the stroke signals via a customer PLC. With connection of our tim[®]IOT smartbox we enable many useful new features increase profitability, process reliability and facilitate preventive maintenance. Simply integrate our tim®IOT smartbox in your system and benefit from these advantages. All information in this regard is provided starting on page 84.

Media

Technical data

Transmission ratio	: 1 to 1	The pump is suitable for pumping
Output (max.)	: Approx. 60 I/min (for water)	a wide variety of fluids
	With PTFE composite diaphragm	(media).Resistance to the media that
Drive	: Pneumatic	will be pumped must be checked on a
Fluid connections	: 3/4" internal thread rotates 90°	case-by-case basis.
Operating pressure	: 1 to 8 bar compressed air, unoiled, filtered, oiled	We would be happy to advise you on
Compressed air connection	: Plug, external hose Ø 8 mm	the suitability for your specific applica-
Suction head, dry	: Max. 4 m	tion.
Weight	: Approx. 6.2 kg	
Viscosity of pumped medium	: Up to 15,000 mPas	
Medium temperature	: Max. +65 °C	
Noise level	: 68 dB(A)	
Strokes	: Max. 8 double strokes/s	
Ex protection	: ATEX (see operating manual for additional	
	information)	

Material

Side section
Middle housing section
Fluid seals
Pneumatic seals
Valve seats
Valve balls
Diaphragm
Control valves
Screws
Cover plate
Valve pipes
Springs

- : Stainless steel : Aluminium
- : FEPM
- : NBR
- : Stainless steel
- : Stainless steel
- : PTFE / NBR as composite material
- : Ceramic valve plate / POM
- : Stainless steel
- : Stainless steel
- : Stainless steel
- : Spring steel



Fluid delivery volume



Added values



Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.



Maximisation of service life

The ceramic slide valve that is used works virtually free of wear. The shortstroke principle prevents over-extension of the diaphragm and thus enables a long service life.



Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.



Easy conversion in existing systems

Small, compact design thanks to optimised valve technology



Increased process reliability

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, over-centre valve prevents problematic intermediate positions of the control valve.



Minimal maintenance costs

The durable short-stroke diaphragms, the low-wear ceramic slide valve and the maintenance-friendly structure of the pump guarantee extremely low service costs. **1/2**" Max. 60 l/min

tim[®] PRO





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Integrated intelligent sensor (iHZ)



Spring-loaded valve balls









PREMIUM double diaphragm pumps PTI-MEM1060-AL

Order no.	Туре	Alignment of suction pipe	Alignment of pressure pipe	Material de- sign	ATEX
53507700	PTI-MEM1060-AL-TF-POM-VA-EPDM-AL-iHZ	Forward	Forward	AL	\checkmark
53507835	PTI-MEM1060I-AL-TF-POM-VA-EPDM-AL-iHZ	Downward	Upward	AL	\checkmark

The tim®PRO series pumps have been successfully used for many years as process pumps and transfer pumps in the paint supply sector and in the printing machine industry.

They are characterized in particular by their process reliability, easy maintenance, small and compact design, good workmanship and long service life. These variants are delivered with an intelligent IoT-enabled sensor, which allows real-time testing of the stroke signals via a customer PLC. With connection of our tim®IOT smartbox we enable many useful new features increase profitability, process reliability and facilitate preventive maintenance. Simply integrate our tim®IOT smartbox in your system and benefit from these advantages. All information in this regard is provided starting on page 84.

Technical data		Media
Transmission ratio	: 1 to 1	The pump is suitable for pumping
Output (max.)	: Approx. 60 I/min (for water) With PTFE composite diaphragm	a wide variety of fluids (media).Resistance to the media that
Drive	: Pneumatic	will be pumped must be checked on a
Fluid connections	: 3/4" internal thread rotates 90°	case-by-case basis.
Operating pressure	: 1 to 8 bar compressed air, unoiled, filtered, oiled	We would be bappy to advise you on
Compressed air connection	: Plug, external hose Ø 8 mm	the suitability for your specific applica-
Suction head, dry	: Max. 4 m	tion.
Weight	: Approx. 4.5 kg	
Viscosity of pumped medium	: Up to 15,000 mPas	
Medium temperature	: Max. +65 °C	
Noise level	: 68 dB(A)	
Strokes	: Max. 8 double strokes/s	
Ex protection	: ATEX (see operating manual for additional	
	information)	

Material

Side section	:	Aluminium
Middle housing section	:	Aluminium
Fluid seals	:	EPDM
Pneumatic seals	:	NBR
Valve seats	:	Stainless steel
Valve balls	:	POM
Diaphragm	:	PTFE / NBR as composite material
Control valves	:	Ceramic valve plate / POM
Screws	:	Stainless steel
Cover plate	:	Stainless steel
Valve pipes	:	Aluminium
Springs	:	Spring steel



tim[®] PRO

Fluid delivery volume



Added values



Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.



Maximisation of service life

The ceramic slide valve that is used works virtually free of wear. The shortstroke principle prevents over-extension of the diaphragm and thus enables a long service life.



Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.



Easy conversion in existing systems

Small, compact design thanks to optimised valve technology



Increased process reliability

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, over-centre valve prevents problematic intermediate positions of the control valve.



Minimal maintenance costs

The durable short-stroke diaphragms, the low-wear ceramic slide valve and the maintenance-friendly structure of the pump guarantee extremely low service costs.



1/2" Max. 50-60 l/min





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Integrated intelligent sensor (iHZ)



Gravity-loaded valve balls





PREMIUM double diaphragm pumps PTI-MEM1060V-PP

Order no.	Туре	Alignment of suction pipe	Alignment of pressure pipe	Material de- sign	ATEX
53509198	PTI-MEM1060V-PP5-EP-TF-PV-FKM-AL-iHZ	Forward	Forward	PP	
53509189	PTI-MEM1060V-PP1-EP-TF-PV-FKM-AL-iHZ	Forward	Forward	PP (conduc- tive)	\checkmark

The tim[®]PRO series pumps have been successfully used for many years as process pumps and transfer pumps in the paint supply sector and in the printing machine industry.

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Technical data		Medi
Transmission ratio	: 1 to 1	The p
Output (max.)	: Approx. 60 l/min and approx. 50 l/min with ATEX version (for water)	a wide (media
Drive	: Pneumatic	will be
Connections for fluids	: G3/4" internal thread	case-l
Operating pressure	: 1 to 7 bar compressed air, unoiled, filtered, or oiled (1 to 4 bar for ATEX version)	We wo
Compressed air connection	: Plug connector, hose outer Ø 8 mm	tion.
Suction head, dry	: Max. 4 m	
Weight	: Approx. 4 kg	
Viscosity of pumped medium	: Up to 15,000 mPas	
Medium temperature	: Max. 5 °C to 60 °C	
Noise level	: 64 dB(A) 20 DH/min 0.1 MPa	
Strokes	: Max. 7 double strokes/s	
	Max. 6 double-strokes/s for ATEX version	

Media

ump is suitable for pumping e variety of fluids a).Resistance to the media that e pumped must be checked on a by-case basis.

ould be happy to advise you on itability for your specific applica-

Material

Side section	: PP
Middle housing section	: Aluminium
Fluid seals	: FPM
Pneumatic seals	: NBR
Valve seats	: PVDF
Valve balls	: PTFE
Diaphragm	: EPDM
Control valves	: Ceramic / POM
Screws	: Stainless steel
Cover plate	: Stainless steel
Valve pipes	: PP
Springs	: None



tim[®] PRO

Fluid delivery volume



Added values



Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.



Maximisation of service life

The ceramic slide valve that is used works virtually free of wear. The shortstroke principle prevents over-extension of the diaphragm and thus enables a long service life.



Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.



Easy conversion in existing systems

Small, compact design thanks to optimised valve technology



Increased process reliability

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, over-centre valve prevents problematic intermediate positions of the control valve.



Minimal maintenance costs

The durable short-stroke diaphragms, the low-wear ceramic slide valve and the maintenance-friendly structure of the pump guarantee extremely low service costs.



Max. 150 l/min Stainless steel (VA) NEW **W** Ready for Future) Imme



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Integrated intelligent sensor (iHZ)



Spring-loaded valve balls

tim[®] PRO









PREMIUM double diaphragm pumps PTI-MEM1150-VA

Order no.	Туре	Alignment of suction pipe	Alignment of pressure pipe	Material de- sign	ATEX
53507704	PTI-MEM1150-VA-TF-VA-VA-Viex-AL-iHZ	Forward	Forward	VA	\checkmark
53507755	PTI-MEM1150I-VA-TF-VA-VA-Viex-AL-iHZ	Downward	Upward	VA	\checkmark

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Media

Technical data

Transmission ratio Output (max.)	: 1 to 1 : Approx. 150 I/min (for water)	The pump is suitable for pumping a wide variety of fluids
	With PTFE composite diaphragm	(media).Resistance to the media that
Drive	: Pneumatic	will be pumped must be checked on a
Fluid connections	: G1¼" internal thread rotates 90 °	case-by-case basis.
Operating pressure	: 1 to 8 bar compressed air, unoiled, filtered, or oiled	We would be happy to advise you on
Compressed air connection	: G1/2"	tion.
Suction head, dry	: Max. 4 m	
Weight	: Approx. 15 kg	
Viscosity of pumped medium	: Up to 15,000 mPas	
Medium temperature	: Max. +65 °C	
Noise level	: 68 dB(A)	
Strokes	: Max. 7 double strokes/s	
Ex protection	: ATEX (see operating manual for additional information)	

Material

Side section Middle housing section Fluid seals Pneumatic seals Valve seats Valve balls Diaphragm Control valves Screws Cover plate Valve pipes Springs

: Stainless steel : Aluminium : FEPM : NBR : Stainless steel : Stainless steel : PTFE / NBR as composite material : Ceramic valve plate / POM : Stainless steel : Stainless steel : Stainless steel : Spring steel



Fluid delivery volume



Added values



Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.



Maximisation of service life

The ceramic slide valve that is used works virtually free of wear. The shortstroke principle prevents over-extension of the diaphragm and thus enables a long service life.



Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.



Easy conversion in existing systems

Small, compact design thanks to optimised valve technology



Increased process reliability

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, over-centre valve prevents problematic intermediate positions of the control valve.



Minimal maintenance costs

The durable short-stroke diaphragms, the low-wear ceramic slide valve and the maintenance-friendly structure of the pump guarantee extremely low service costs.







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Integrated intelligent sensor (iHZ)



Spring-loaded valve balls

tim[®] PRO









PREMIUM double diaphragm pumps PTI-MEM1150-AL

Order no.	Туре	Alignment of suction pipe	Alignment of pressure pipe	Material de- sign	ATEX
53507706	PTI-MEM1150-AL-TF-POM-VA-EP-AL-iHZ	Forward	Forward	AL	\checkmark
53507836	PTI-MEM1150I-AL-TF-POM-VA-EP-AL-iHZ) Downward	Upward	AL	\checkmark

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Media

Technical data

Transmission ratio Output (max.)	1 to 1Approx. 150 I/min (for water)With PTFE composite diaphragm	The pump is suitable for pumping a wide variety of fluids (media).Resistance to the media that		
Drive	: Pneumatic	will be pumped must be checked on a		
Fluid connections	: G11/4" internal thread rotates 90 °	case-by-case basis.		
Operating pressure : 1 to 8 bar compressed air, unoiled, filtered, or oiled		We would be happy to advise you on		
Compressed air connection	: G1/2"	tion.		
Suction head, dry	: Max. 4 m			
Weight	: Approx. 9 kg			
Viscosity of pumped medium	: Up to 15,000 mPas			
Medium temperature	: Max. +65 °C			
Noise level	: 68 dB(A)			
Strokes	: Max. 7 double strokes/s			
Ex protection	: ATEX (see operating manual for additional information)			

Material

Side section Middle housing section Fluid seals Pneumatic seals Valve seats Valve balls Diaphragm Control valves		Aluminium Aluminium EPDM NBR Stainless steel POM PTFE / NBR as composite material Ceramic valve plate
Velve eeste	÷	
valve seals	÷	Stall liess steel
Valve balls	:	POM
Diaphragm	:	PTFE / NBR as composite material
Control valves	:	Ceramic valve plate
Screws	:	Stainless steel
Cover plate	:	Stainless steel
Valve pipes	:	Aluminium
Springs	:	Spring steel



Fluid delivery volume



Added values



Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.



Maximisation of service life

The ceramic slide valve that is used works virtually free of wear. The shortstroke principle prevents over-extension of the diaphragm and thus enables a long service life.



Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures, starting at 0.7 bar, reduce energy consumption to a minimum.



Easy conversion in existing systems

Small, compact design thanks to optimised valve technology



Increased process reliability

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, over-centre valve prevents problematic intermediate positions of the control valve.



Minimal maintenance costs

The durable short-stroke diaphragms, the low-wear ceramic slide valve and the maintenance-friendly structure of the pump guarantee extremely low service costs.



2^{II} Max. 600 l/min



Stainless steel







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DIN flange DN50/PN10 2" BSP combined connection



Integrated intelligent sensor (iHZ)



Gravity-loaded valve balls





PREMIUM double diaphragm pumps PTI-MEM5600V-VA

Order no.	Туре	Media pipes	Material de- sign	ATEX
53503550	PTI-MEM5600V-VA-TF-TF-TF-FEP-PE1-iHZ-FL	Rotates 180° Flange / thread 2"	VA	\checkmark

by its high chemical resistance, as well

as good rinsing capability and thus it is

These variants are delivered with an in-

telligent IoT-enabled sensor, which allows

real-time testing of the stroke signals via

a customer PLC. With connection of our

tim®IOT smartbox we enable many

ideally suited for use in the

chemical industry.

This pump is a further development of the original tim®PRO series, which has been highly regarded for many years in the paint supply sector and the printing machine industry for its process reliability and easy maintenance. In addition to these advantages the

tim®PRO pump

is particularly characterised

Technical data

Transmission ratio	: 1 to 1
Output (max.)	: Approx. 600 I/min (for water)
	With PTFE composite diaphragm
Drive	: Pneumatic
Fluid connections	: DIN flange DN50 / PN10, 2" BSP
Operating pressure	: 1 to 7 bar compressed air, unoiled, filtered,
	or oiled
Compressed air connection	: G 3/4" internal thread
Suction head, dry	: Max. 6 m
Weight	: Approx. 70 kg
Viscosity of pumped medium	: to 10,000 mPas
Medium temperature	: +5 to +120 °C
	(depending on the version and application)
Strokes	: Max. 2 double strokes/s
Ex protection	: ATEX (see operating manual for more infor- mation)

Material

Housing Middle housing section Valve ball seats Valve balls Diaphragms Seals

: Stainless steel (V4A) PE electrically conductive PTFE : PTFE : PTFE composite

: FEP

Media

on page 84.

The pump is suitable for pumping a wide variety of fluids (media).Resistance to the media that will be pumped must be checked on a case-by-case basis.
We would be happy to advise you on

useful new features increase profitability,

process reliability and facilitate preven-

tive maintenance. Simply integrate our

tim®IOT smartbox in your system and

benefit from these advantages. All infor-

mation in this regard is provided starting

the suitability for your specific application.



Fluid delivery volume



Added values



Easy installation

Easy replacement of the valve balls without dismounting the side cover or the unperforated diaphragms.Special tools are not required for mounting / dismounting. Only 4 sealing rings are installed on the media side.



Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures <0.7 bar, reduce energy consumption to a minimum.



Maximisation of service life

The ceramic slide valve that is used works virtually free of wear. The durable diaphragms enable maximisation of service life.



Minimal maintenance costs

The durable diaphragms, the low-wear ceramic slide valve and the easy-maintenance structure of the pump guarantee extremely low service costs.



Increased process reliability

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, over-centre valve prevents problematic intermediate positions of the control valve.



Minimum pulsation

Minimal changeover times in conjunction with the short-stroke principle of the pumps reduce pulsation to a minimum and ensure a more uniform media flow.



Double diaphragm pump with complete emptying

tim[®] PRO



Lever up, the ball is lifted (non-return valve unlocked)







PREMIUM double diaphragm pumps PTI-MEM5600V-VA-RE

Order no.	Туре	Media pipes	Material de- sign	ATEX
53503569	PTI-MEM5600V-VA-TF-TF-TF-FEP-PE1-iHZ-FL-RE	Rotates 180° Flange / thread 2"	VA	\checkmark

This pump is a further development of the original tim®PRO series, which has been highly regarded for many years in the paint supply sector and the printing machine industry for its process reliability and easy maintenance.

In addition to these advantages the tim®PRO pump

is particularly characterised

by its high chemical resistance, as well as good rinsing capability and thus it is ideally suited for use in the chemical industry.

Via manually activated eccentric tappet the valve balls can be lifted out of the seats.

This enables virtually complete return of the residual media quantity via the pump's suction pipe.

These variants are delivered with an intelligent IoT-enabled sensor, which allows real-time testing of the stroke signals, incl. process-relevant data (total of all strokes, average frequency, frequency histogram) via a customer PLC. With connection of our tim®IOT smartbox we enable many useful new features that increase profitability, process reliability and facilitate preventive maintenance. Simply integrate our tim®I-OT smartbox in your system and benefit from these advantages. All information in this regard is provided starting on page 84.

Technical data

Transmission ratio	:	Approx. 1 to 1	The
Output (max.)	:	Approx. 600 I/min (for water)	a wi
Pump pressure (max.)	:	7 bar	(me
Drive	:	Pneumatic	will
Fluid connections	:	DIN flange PN10 / DN50, G 2"	cas
Operating pressure	:	1 to 7 bar compressed air, unoiled, filtered, or oiled	We the
Compressed air connection	:	G3/4" internal thread	tion
Suction head, dry	:	Approx. 6 meters self-priming	
Weight	:	Approx. 76 kg	
Medium temperature	:	Max. +5 °C to + 70 °C	
Ex protection	:	ATEX (see operating manual for more infor-	

mation)

Media

The pump is suitable for pumping a wide variety of fluids (media).Resistance to the media that will be pumped must be checked on a case-by-case basis.

We would be happy to advise you on the suitability for your specific application.

Material

Side section Middle housing section fluid seals Pneumatic seals Valve seats valve balls Diaphragm / piston seal control valve Screws Valve pipes Springs

- Stainless steel
 PE black, conductive
 FEP / EPDM
 NBR / PUR
 PTFE
 PTFE
 TFM
 Ceramic/plastic
 Stainless steel
 Stainless steel
- : None



Fluid delivery volume



Added values



Maximum paint recovery

Residual quantities of the medium can be recirculated by mechanically lifting the valve balls.



Easy installation

Easy replacement of the valve balls without dismounting the side cover or the unperforated diaphragms.Special tools are not required for mounting / dismounting. Only 4 sealing rings are installed on the media side.



Reduced compressed air costs

Optimised geometries with minimal dead spaces, as well as the extremely low start-up pressures <0.7 bar, reduce energy consumption to a minimum.



Maximisation of service life

The ceramic slide valve that is used works virtually free of wear. The durable diaphragms enable maximisation of service life.



Minimal maintenance costs

The durable diaphragms, the low-wear ceramic slide valve and the easy-maintenance structure of the pump guarantee extremely low service costs.



Increased process reliability

Safe start-up of the pump is ensured, even in critical operating situations. The bistable, over-centre valve prevents problematic intermediate positions of the control valve.