

Plunger Metering Pump Meta

Meta plunger pump – durable and high-performance



Capacity range 6 – 59 l/h, 216 – 52 bar

The Meta (MTKa) is a plunger metering pump, the pump capacity of which can be precisely adjusted in 0.2% increments, either manually or optionally with an electric

actuator or control drive. A wide range of power end versions is available for use in areas at risk from explosion with ATEX certification.

Your benefits

Excellent process safety and reliability:

- Metering reproducibility is better than $\pm 0.5\%$ within the 10 – 100% stroke length range under defined conditions and with correct installation

Flexible adaptation to the process:

- Wide range of power end versions, also for use in Exe and Exde areas and different flange designs for the use of customised motors
- Customised designs are available on request

Field of application

- Volume-proportional metering of chemicals in the treatment of boiler feed water
- Metering of reactants and catalysts in the chemical industry
- Level-dependent metering of auxiliary agents in industrial production engineering, for instance hot wax metering in the production of adhesive strips

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Technical Data

Control of Meta Plunger Metering Pumps

Speed controllers in metal housing (Identity code characteristic Z)

Frequency changer built into IP 54 protective housing and main switch designed for max. 0.37 kW motor output.

Externally controlled with 0/4-20 mA / 0-10 V to correspond to 0-50 (60) Hz output frequency.

Integrated controller with versatile functions e.g. switching between external/internal control. With internal control, frequency input is via arrow keys. Multi lingual fault message display and motor temperature monitoring (thermistor-protection).

The speed controller assembly consists of a speed controller and a variable speed motor (see also identity code characteristic R).

Type MTKa	With 1500 rpm motor at 50 Hz				With 1800 rpm motor at 60 Hz				Suction lift	Perm. pre-pressure suction side	Connector Suction/ Discharge Side	Motor rating	Shipping weight	Plunger Ø
	Delivery rate at max. back pressure		Max. stroke rate	Delivery rate at max. back pressure		Max. stroke rate	m WC	bar						
bar	l/h	ml/stroke		Strokes/min	psi				l/h/gph (US)	Strokes/min				
21606	216	6.1	1.42	72	3,130	7.3/1.9	86	4.0	108	1/4	180	18	12	
24006	240	6.1	1.42	72	3,477	7.3/1.9	86	4.0	120	1/4	370	20	12	
16208	162	8.1	1.42	96	2,347	9.8/2.6	115	4.0	81	1/4	180	18	12	
22508	225	8.1	1.42	96	3,260	9.8/2.6	115	4.0	112.5	1/4	370	20	12	
12910	129	10.2	1.42	120	1,878	12.2/3.2	144	4.0	64.5	1/4	180	18	12	
21610	216	10.2	1.42	120	3,130	12.2/3.2	144	4.0	108	1/4	370	20	12	
10812	108	12.2	1.42	144	1,565	14.7/3.9	173	4.0	54	1/4	180	18	12	
21012	210	12.2	1.42	144	3,043	14.7/3.9	173	4.0	105	1/4	370	20	12	
10213	102	13.0	3.01	72	1,479	15.6/4.1	86	4.0	51	1/4	180	18	17	
11313	113	13.0	3.01	72	1,644	15.6/4.1	86	4.0	56.5	1/4	370	20	17	
07617	76	17.3	3.01	96	1,109	20.8/5.5	115	4.0	38	1/4	180	18	17	
10617	106	17.3	3.01	96	1,541	20.8/5.5	115	4.0	53	1/4	370	20	17	
06122	61	21.7	3.01	120	888	26.0/6.9	144	4.0	30.5	1/4	180	18	17	
10222	102	21.7	3.01	120	1,479	26.0/6.9	144	4.0	51	1/4	370	20	17	
05126	51	26.0	3.01	144	740	31.2/8.2	173	4.0	25.5	1/4	180	18	17	
09926	99	26.0	3.01	144	1,438	31.2/8.2	173	4.0	49.5	1/4	370	20	17	
05425	54	24.6	5.71	72	782	29.5/7.8	86	4.0	27	3/8	180	18	23	
06025	60	24.6	5.71	72	869	29.5/7.8	86	4.0	30	3/8	370	20	23	
04033	40	32.8	5.71	96	587	39.4/10.4	115	4.0	20	3/8	180	18	23	
05633	56	32.8	5.71	96	815	39.4/10.4	115	4.0	28	3/8	370	20	23	
03241	32	41.1	5.71	120	469	49.3/13.0	144	4.0	16	3/8	180	18	23	
05441	54	41.1	5.71	120	782	49.3/13.0	144	4.0	27	3/8	370	20	23	
02749	27	49.3	5.71	144	391	59.2/15.6	173	4.0	13.5	3/8	180	18	23	
05249	52	49.3	5.71	144	761	59.2/15.6	173	4.0	26	3/8	370	20	23	

Materials in Contact With the Medium

Material	Dosing head	Suction/pressure connector	Seals	Valve balls	Valve seat	Plunger
SST	Stainless steel 1.4404	Stainless steel 1.4404	PTFE or PTFE + 25 % carbon	Ceramic	Stainless steel 1.4404	Ceramic

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Motor Data

Identity code specification		Power supply			Remarks
S	3-phase, IP 55	220 – 240 V/380 – 420 V 250 – 280 V/440 – 480 V	50 Hz 60 Hz	0.18/0.37 kW 0.18/0.37 kW	
R	3-phase, IP 55	230 V/400 V	50/60 Hz	0.37 kW	with PTC, speed control range 1:20 with external fan 1-phase 230 V; 50/60 Hz
M	1-phase AC, IP 55	230 V ± 5 %	50/60 Hz	0.37 kW	
N	1-phase AC, IP 55	115 V ± 5 %	60 Hz	0.37 kW	
L1	3-phase, II 2G Ex e II T3	220 – 240 V/380 – 420 V	50 Hz	0.18/0.37 kW	
L2	3-phase, II 2G Ex de IIC T4	220 – 240 V/380 – 420 V	50 Hz	0.18/0.37 kW	with PTC, speed control range 1:5
P1	3-phase, II 2G Ex e II T3	250 – 280 V/440 – 480 V	60 Hz	0.18/0.37 kW	
P2	3-phase, II 2G Ex de IIC T4	250 – 280 V/440 – 480 V	60 Hz	0.18/0.37 kW	with PTC, speed control range 1:5

The motor power is dependent on the pump type (see technical data).

Motor data sheets can be requested for more information.

Special motors or special motor flanges are available on request.

The motors are designed in compliance with the Ecodesign Directive 2009/125/EC.

Information for use in areas at risk from explosion

Only use pumps with the appropriate labelling in line with the ATEX Directive 2014/34/EU in premises at risk from explosion. Ensure that the explosion group, category and degree of protection specified on the label corresponds to or is better than the conditions prevalent in the intended field of application.