

- 💧 Centralized lubrication systems
- 💧 Metering technology
- 💧 Mixing technology



LubTec Metering Valves



General

LubTec metering valves are volumetric dosing elements intended for precision dosing of low to high viscosity materials such as fats, oils, glues, compounds, silicones and resins.

For dosing abrasive materials, special design valves can be supplied

Valves are made in various dosing ranges, ranging from 0,001cm³ up to 500cm³.

LubTec metering valves are made in three different structural versions:

- **needle metering valves**
- **prechamber metering valves**
- **chamber metering valves**



Needle metering valve with a pneumatic handle

Description

- dosed material is brought to the valve from the pump or from pressure container
- material dosing in the valve is realized by means of pneumatically driven piston
- required dosing volume is set continuously using a set screw controlling piston stroke
- valve operating speed depends on input material viscosity and pressure
- LubTec metering valves can be equipped with a manual application handle
- it is possible to attach a proximity sensor to some types of dosing valves, sensing piston movement
- a broad assortment of cannulas is available for various types of applications.

- 🔥 Centralized lubrication systems
- 🔥 Metering technology
- 🔥 Mixing technology

Needle metering valves

(Dosing volume $0,001 \div 1,0\text{cm}^3$)

LubTec needle metering valves are intended to dose low to high viscosity materials.

A needle dosing valve consists of two structurally separated parts; during valve needle movement, material can not intrude from valve head to the pneumatic working cylinder.

Main features

- continuously adjustable dosing volume
- precise, repeatable dosing volume
- high pressure load capacity

Options

- material paths of high grade steel
- valve needle and seat of hard metals for dosing abrasive materials
- electrically or pneumatically controlled valve handle

Set screw – dosing volume setting

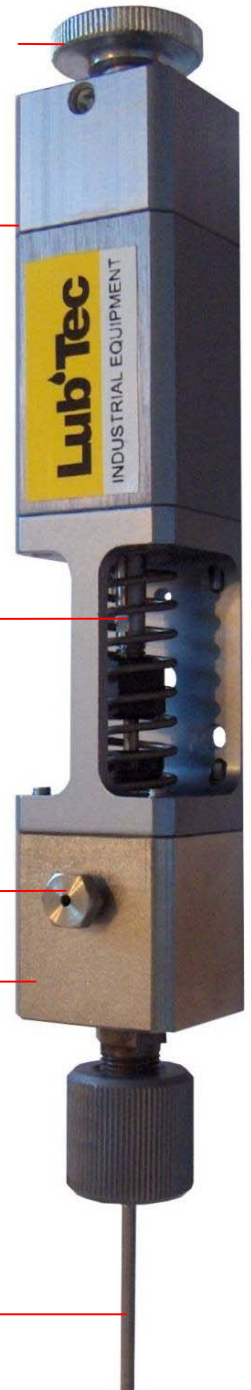
Operating cylinder

Valve needle

Deaeration screw

Valve head

Dispensing needle



- 🔥 **Centralized lubrication systems**
- 🔥 **Metering technology**
- 🔥 **Mixing technology**

Dosing metering with a prechamber

(Dosing volume $0,050 \div 100\text{cm}^3$)

LubTec metering valves with prechamber are intended for dosing low to high viscosity materials.

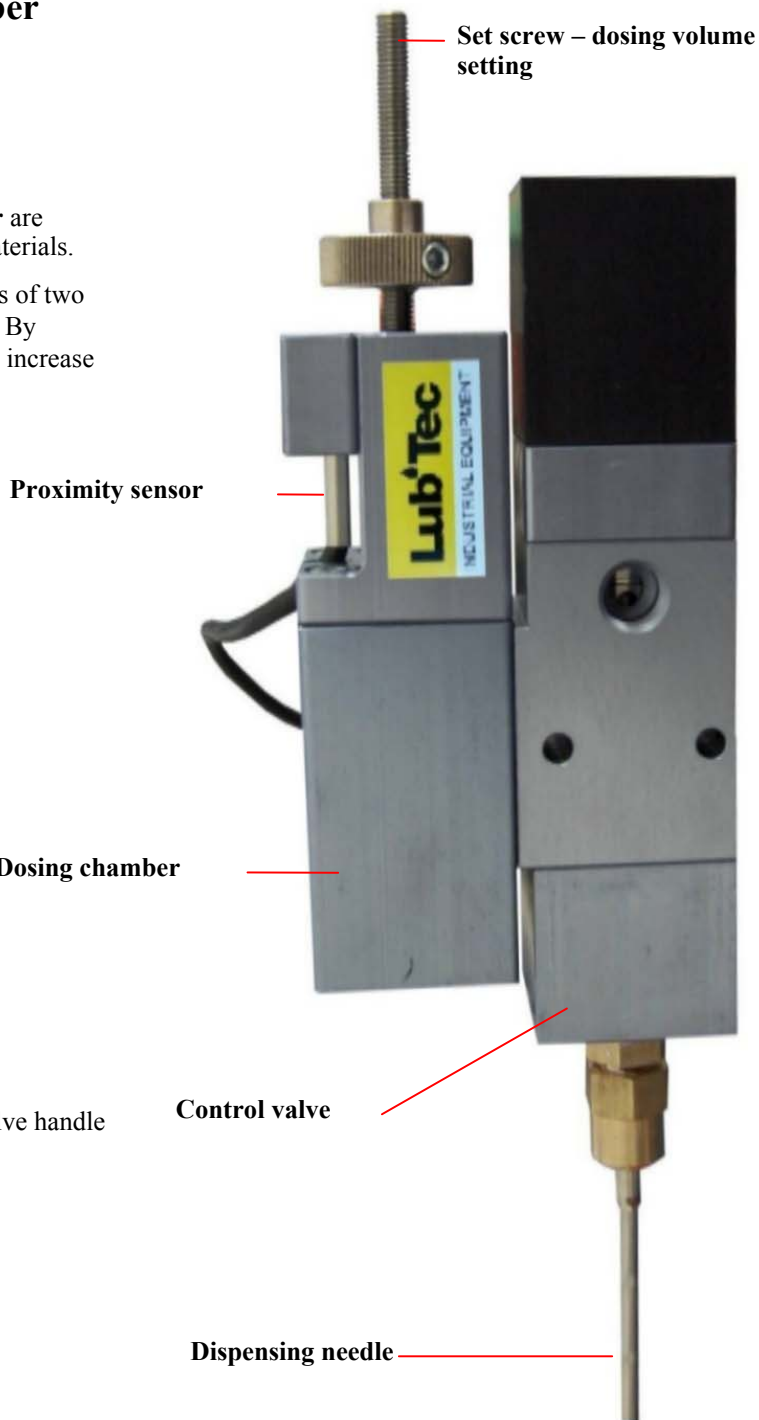
A metering valve with a prechamber consists of two parts: a dosing chamber and a control valve. By changing the dosing chamber you can easily increase dosing range of most valves.

Main features

- continuously adjustable dosing volume
- precise, repeatable dosing volume
- high pressure load capacity
- back suction effect

Options

- possibility of fine adjustment
- proximity sensor for dosing control
- electrically or pneumatically controlled valve handle



- Centralized lubrication systems
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Implementation of metering valves

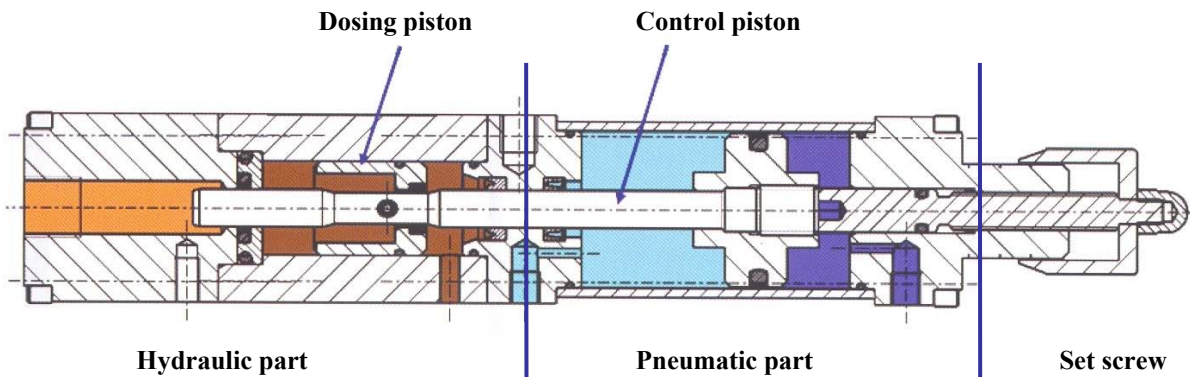
	implementation		catalogue number	dosing		working pressure			connection				equipment								weight					
	steel	stainless		from	to	minimum	nominal	maximum	air	material input (i-inside thread)	cleaning input (a-outside thread)	material output	output nozzle	nozzle thread	dosing valve	sensor attaching option	fine adjustment	measurement rod	magnetic valve plate	adapter plate (i-standart)		handle	seal tightening wrench (x-at request)	set of seals	coating nozzle	with package
Needle dosing valves 0,001 ÷ 1cm³																										
Standard	X		L.401.04.70	0,001	0,01	3	*	20	M5 i	G1/8 a	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	-	-	0.28
	X		L.403.04.70	0,001	0,01	3	*	20	M5 i	G1/8 a	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	-	-	0.28
Standard	X		L.400.04.47	0,003	0,1	3	*	60	G1/8 i	G1/4 i	-	-	X	i	-	-	i	i	-	-	X	-	-	-	-	1.45
Standard	X		L.401.04.00	0,005	0,1	3	*	20	G1/8 i	G1/4 a	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	X	-	0.84
	X		L.401.04.02	0,005	0,1	3	*	10	G1/8 i	G1/4 a	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	X	-	0.84
	X		L.403.04.00	0,005	0,1	3	*	20	G1/8 i	G1/4 a	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	X	-	0.87
Standard	X		L.402.04.00	0,005	0,1	3	*	20	G1/8 i	G1/4 i	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	X	-	1.57
	X		L.402.04.01	0,005	0,1	3	*	20	G1/8 i	G1/4 i	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	X	-	1.57
Standard	X		L.402.04.30	0,008	0,18	3	*	20	G1/8 i	G1/4 a	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	X	-	0.83
	X		L.402.04.02	0,008	0,18	3	*	20	G1/8 i	G1/4 a	-	M12x1 a	X	i	-	-	i	i	X	-	X	X	-	X	-	1.57
	X		L.417.01.30	0,02	0,4	3	*	20	G1/8 i	G1/4 a	-	∅ 17	-	-	-	-	i	i	X	-	-	-	-	-	-	1.70
Dosing valves with a prechamber 0,05 ÷ 100cm³																										
Standard	X		L.415.01.70	0,05	0,5	15	100	160	G1/8 i	G1/8 i	G1/8 i	G1/8 i	X	X	i	-	-	-	-	-	-	-	-	-	-	0.56
	X		L.415.01.73	0,05	0,5	15	100	160	G1/8 i	G1/8 i	G1/8 i	G1/8 i	X	X	i	i	-	-	-	-	-	-	-	-	-	0.63
Standard	X		L.418.01.00	0,05	1	15	60	160	G1/8 i	G1/4 i	-	G1/8 i	X	X	i	X	i	X	X	X	X	-	X	-	-	1.02
Standard	X		L.417.01.00	0,05	1	3	*	20	G1/8 i	G1/4 a	-	M12x1 a	X	i	-	-	i	i	X	X	X	X	-	X	-	1.40
	X		L.417.01.20	0,05	1	3	*	20	G1/8 i	G1/4 a	-	M12x1 a	X	i	-	-	i	i	X	X	X	X	-	X	-	1.48
Standard	X		L.415.01.72	0,1	3	15	100	160	G1/8 i	G1/8 i	G1/8 i	G1/8 i	X	X	i	-	-	-	-	-	-	-	-	-	-	0.68
Standard	X		L.415.01.75	0,1	3	15	100	160	G1/8 i	G1/8 i	G1/8 i	G1/8 i	X	X	i	i	-	-	-	-	-	-	-	-	-	0.68
	X		L.414.01.75	0,1	3	15	100	160	G1/8 i	G1/8 i	G1/8 i	G1/8 i	X	X	i	i	-	-	-	-	-	-	-	-	-	0.68
	X		L.418.10.00	0,5	10	15	60	160	G1/8 i	G1/4 i	-	G1/8 i	X	X	i	X	i	X	X	X	X	-	X	-	-	1.02
Standard	X		L.415.12.00	0,5	12	15	100	160	G1/8 i	G1/4 i	G1/8 i	G1/4 i	X	X	i	-	-	-	-	X	X	-	-	-	-	1.65
	X		L.415.12.15	0,5	12	15	100	160	G1/8 i	G1/4 i	G1/8 i	G1/4 i	X	X	i	-	i	-	-	X	X	-	-	-	-	1.75
	X		L.415.12.40	0,5	12	15	100	160	G1/8 i	G1/4 i	G1/8 i	G1/4 i	X	X	i	-	i	-	-	X	X	-	-	-	-	1.65
	X		L.415.12.21	0,5	12	15	100	160	G1/8 i	G1/4 i	G1/8 i	G1/4 i	X	X	i	i	-	-	-	X	X	-	-	-	-	1.95
Standard	X		L.415.100.0	5	100	15	100	160	G1/8 i	G1/4 i	G1/8 i	G1/4 i	X	X	i	-	-	-	-	i	-	-	-	-	-	4.10
	X		L.415.100.5	5	100	15	100	160	G1/8 i	G1/4 i	G1/8 i	G1/4 i	X	X	i	-	i	-	-	i	-	-	-	-	-	4.95
	X		L.415.101.0	5	100	15	100	160	G1/8 i	G1/4 i	G1/8 i	G1/4 i	X	X	i	i	-	-	-	i	-	-	-	-	-	4.75
	X		L.415.101.7	5	100	15	100	160	G1/8 i	G1/4 i	G1/8 i	G1/4 i	X	X	i	-	i	-	-	i	-	-	-	-	-	4.75

Dosing frequency depends on viscosity and material input pressure

- ☛ Centralized lubrication systems
- ☛ Metering technology
- ☛ Mixing technology

Metering valves with a chamber

(Dosing volume 0,005 ÷ 500cm³)



LubTec metering valves with chamber are intended mainly for precision dosing of NLGI Class 0 ÷ 3 oils and greases. The valves consist of pneumatic and hydraulic part. Dosing volume can be set precisely with a set screw.

Metering valves with a chamber are divided according to their structure as follows:

- valves with a horizontal handle
- valves with a vertical handle
- valves with an assembly block
- standard valves
- dosing stations with manual or pneumatic drive

Metering valves with a chamber

(Dosing volume 0,005 ÷ 500cm³)

LubTec metering valves with a chamber can be ordered with a proximity switch for dosing control:

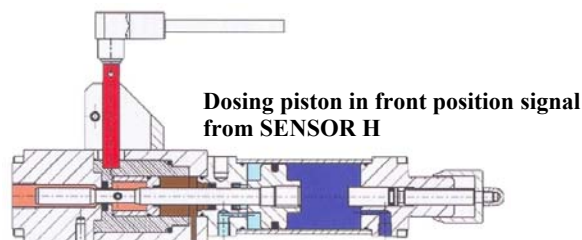
with a proximity sensor in the dosing part – SENSOR H (order no. xxxxx.x3)

with a proximity sensor in the pneumatic part – SENSOR P (order no. xxxxx.x4)

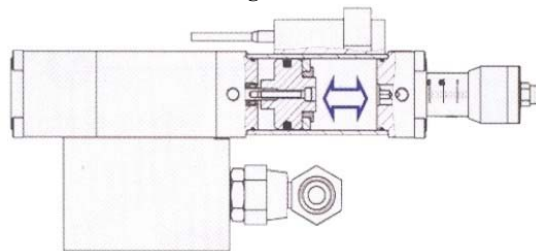
with both sensors – SENSOR HP (order no. xxxxx.x8)

LubTec metering valve with SENSOR H (checking in hydraulic part)

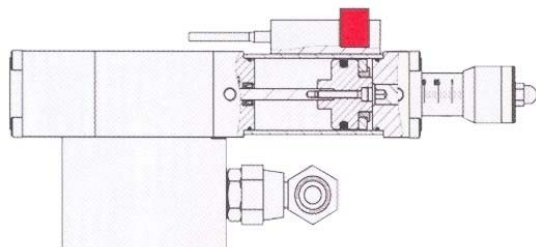
SENSOR H records the position of dosing piston, incoming signal acknowledges dosing cycle completion. This signal will not come until material has flowed through. This signal allows checking the production process. Robust design ensures long lifetime. SENSOR H is protected against polarity switching and high voltage.



**Pneumatic piston in front position
no signal from SENSOR P**



Pneumatic piston in rear position signal from SENSOR P



LubTec metering valve with SENSOR P (checking in pneumatic part)

The proximity switch (SENSOR P) senses the movement of magnet located on the pneumatic piston

- 💧 Centralized lubrication systems
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Metering valves with a chamber - horizontal handle xxxxx.1x

(Dosing volume 0,05 ÷ 6cm³)

LubTec metering valves with a chamber – horizontal handle are intended for manual use in dosing applications. Thanks to ergonomic shape of the handle, the valve fits well in hand. For optimum working conditions, the metering valve can be hung on a balancer.

Air and material connections to the valve are possible in the top as well as bottom parts of the handle.

Dosing accuracy in the middle of dosing range is +/- 2%.



For better dosing process control, the valves are also available with H and P sensors.

- ☛ Centralized lubrication systems
- ☛ Metering technology
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Metering valves with a chamber – vertical handle xxxxx.2x

(Dosing volume 0,05 ÷ 6cm³)

LubTec metering valves with a chamber – vertical handle are intended for manual use in dosing applications. Their shape predisposes them for use in vertical dosing.

Dosing accuracy in the middle of dosing range is +/- 2%.



Easy operation
 incorporated 5/2
 way control valve
 long lifetime
 possible hanging
 on balancer

The version of dosing
 valve without sensor is
 of the same appearance
 as the valve with P
 sensor.
 Only the sensor and its
 fixation are not there.

- Centralized lubrication systems
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Design of metering valves with a chamber

Catalogue no.	Dosing (cm ³)		Control pressure of air (bar)			Material pressure (bar)		connecting threads				Sensor						weight (kg)	
	from	to	minimum	nominal	maximum	maximum output	maximum input	air "1" "2" "4"	material input "P"	material output "A"	fixing thread	H sensor	P sensor	HP sensor	operating voltage (V)	maximum current load (A)	IP coverage		Signalling
With horizontal handle 0,05 + 6cm³																			
L.41926.10	0,05	0,45	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M6	-	-	-	-	-	-	-	0.967
L.41926.13	0,05	0,45										x	-	-	-	-	-	-	
L.41926.14	0,05	0,45											x	-	-	-	-	-	
L.41956.10	0,2	2	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M6	-	-	-	-	-	-	-	0.977
L.41956.13	0,2	2										x	-	-	-	-	-	-	
L.41956.14	0,2	2											x	-	-	-	-	-	
L.41961.10	1,0	6,0	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M6	-	-	-	-	-	-	-	1.567
L.41961.13	1,0	6,0										x	-	-	-	-	-	-	
L.41961.14	1,0	6,0											x	-	-	-	-	-	
With vertical handle 0,05 + 6cm³																			
L.41926.20	0,05	0,45	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	-	-	-	-	-	-	-	1.196
L.41926.23	0,05	0,45	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	x	-	-	12÷30	0.2	67	LED	1.227
L.41926.24	0,05	0,45	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	-	x	-	12÷24	0.2	67	LED	1.216
L.41926.28	0,05	0,45	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	x	x	x	12÷24	0.2	67	LED	1.216
L.41956.20	0,2	2	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	-	-	-	-	-	-	-	1.202
L.41956.23	0,2	2	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	x	-	-	12÷30	0.2	67	LED	1.267
L.41956.24	0,2	2	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	-	x	-	12÷24	0.2	67	LED	1.222
L.41956.28	0,2	2	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	x	x	x	12÷24	0.2	67	LED	1.202
L.41961.20	1,0	6,0	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	-	-	-	-	-	-	-	1.657
L.41961.23	1,0	6,0	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	x	-	-	12÷30	0.2	67	LED	1.696
L.41961.24	1,0	6,0	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	-	x	-	12÷24	0.2	67	LED	1.690
L.41961.28	1,0	6,0	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	x	x	x	x	12÷24	0.2	67	LED	1.657

dosing frequency depends on viscosity and input pressure of material
 Valves can be used for lubricants up to NLGI Class 3 / max. 1 000 000 mPa.s

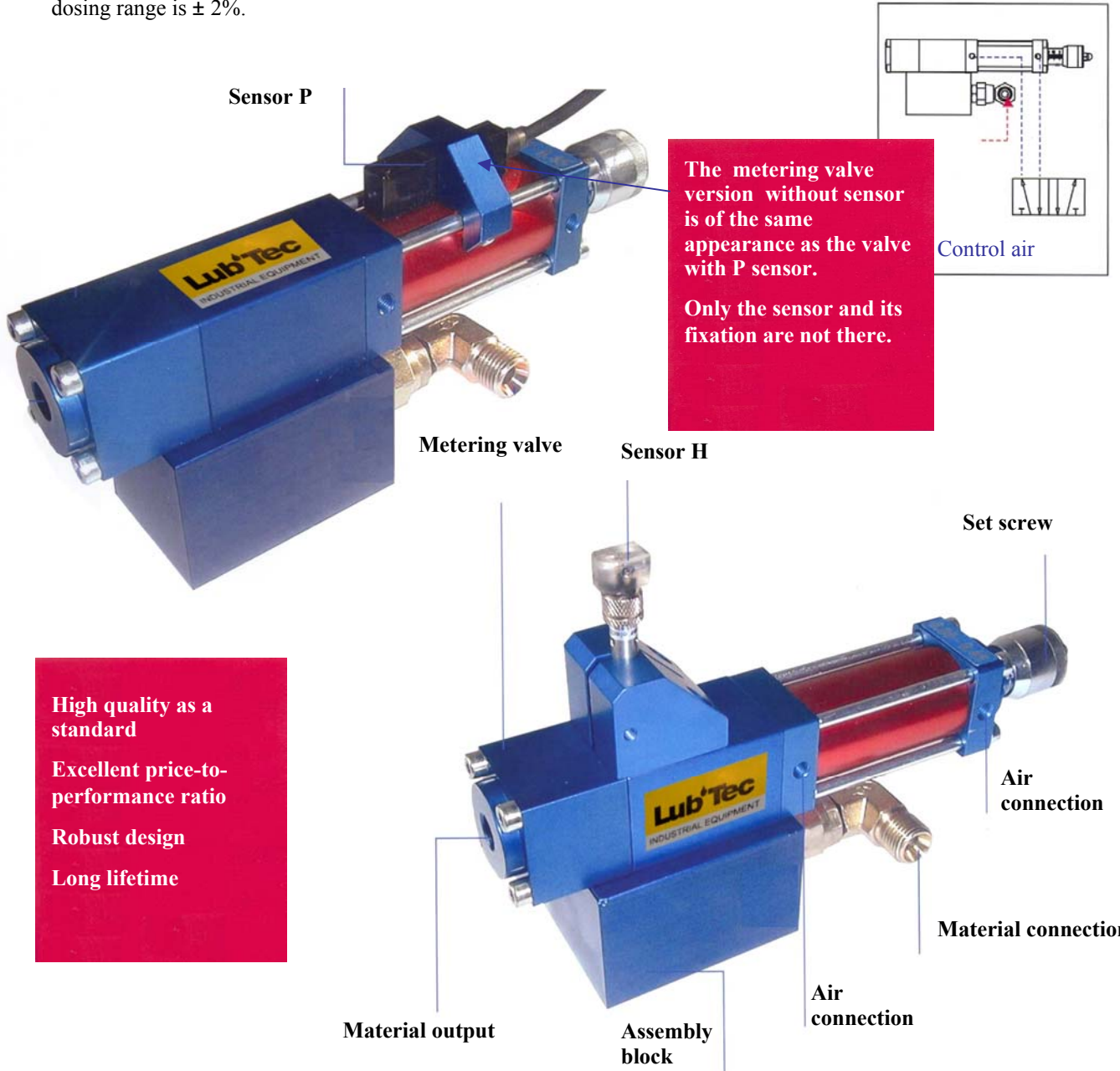
- Centralized lubrication systems
- Metering technology
- Mixing technology



Metering valves with a chamber – and mounting block

(Dosing volume 0,005 ÷ 6cm³)

LubTec metering valves with a chamber – with a mounting block are intended especially for permanent fixation to the production equipment. A 5/2-way valve is used for control. Dosing accuracy in the middle of dosing range is ± 2%.

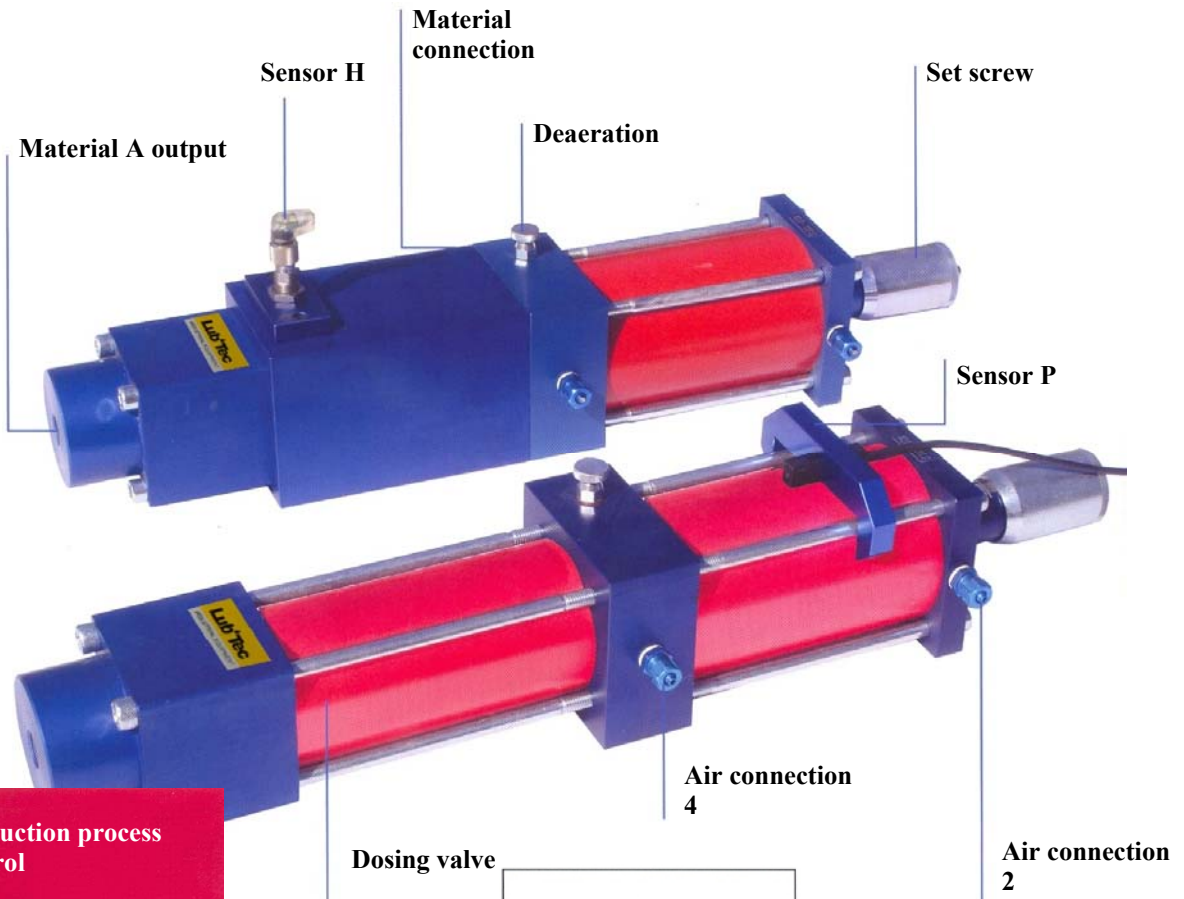


- Centralized lubrication systems
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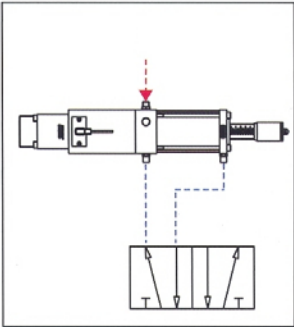
Metering valves with a chamber – standard

(Dosing quantity $2 \div 133\text{cm}^3$)

LubTec metering valves with a chamber – standard are intended for dosing a greater quantity of material. A 5/2 path valve is used for control. Dosing accuracy in the middle of dosing range is $\pm 2\%$.



Production process control
 High quality as a standard
 Excellent price-to-performance ratio
 Robust design
 Long lifetime



Control air

The metering valve version without sensor is of the same appearance as the valve with P sensor. Only the sensor and its fixation are not there.

- Centralized lubrication systems
- Metering technology
- Mixing technology

Implementation of metering valves with a chamber

Catalogue no.	dosing (cm ³)		control pressure of air (bar)			material pressure (bar)		connecting threads				sensor				weight (kg)			
	from	to	minimum	nominal	maximum	maximum input	maximum output	air "1" "2" "4"	material input "P"	material output "A"	connecting thread	H sensor	P sensor	HP sensor	operating voltage (V)		maximum current load (A)	IP coverage	signalling
With a mounting block 0,005 + 6,00 cm³																			
L.41922.00	0,005	0,100	5	6	7	100	80	M3 i	G1/8 i	G1/8 i	M4	-	-	-	-	-	-	-	0.240
L.41922.03	0,02	0,100	5	6	7	80	70	M3 i	G1/8 i	G1/8 i	M4	x	-	-	10÷30	0.1	67	LED	0.250
L.41922.04	0,005	0,100	5	6	7	100	80	M3 i	G1/8 i	G1/8 i	M4	-	x	-	4,5+28	-	67	LED	0.243
L.41927.00	0,05	0,45	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M5	-	-	-	-	-	-	-	0.425
L.41927.03	0,05	0,45	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M5	x	-	-	12÷30	0.2	67	LED	0.670
L.41927.04	0,05	0,45	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M5	-	x	-	12÷24	0.5	67	LED	0.670
L.41957.00	0,20	2,00	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M5	-	-	-	-	-	-	-	0.425
L.41957.03	0,20	2,00	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M5	x	-	-	12÷30	0.2	67	LED	0.680
L.41957.04	0,20	2,00	5	6	7	200	80	M5 i	G1/8 i	G1/8 i	M5	-	x	-	12÷24	0.5	67	LED	0.680
L.41962.00	1,00	6,00	5	6	7	200	80	M5 i	G1/8 i	G1/4 i	M5	-	-	-	-	-	-	-	0.830
L.41962.03	1,00	6,00	5	6	7	200	80	M5 i	G1/8 i	G1/4 i	M5	x	-	-	12÷30	0.2	67	LED	1.090
L.41962.04	1,00	6,00	5	6	7	200	80	M5 i	G1/8 i	G1/4 i	M5	-	x	-	12÷24	0.5	67	LED	1.090
Standard 2,0 ÷ 133,0 cm³																			
L.41965.00	2,0	26,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M6	-	-	-	-	-	-	-	2.087
L.41965.03	2,0	26,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M6	x	-	-	10÷30	0.2	68/67	LED	2.500
L.41965.04	2,0	26,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M6	-	x	-	12÷24	0.5	67	LED	2.087
L.41970.00	5,0	54,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M6	-	-	-	-	-	-	-	2.560
L.41970.03	5,0	54,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M6	x	-	-	10÷30	0.2	68/67	LED	2.860
L.41970.04	5,0	54,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M6	-	x	-	12÷24	0.5	67	LED	2.640
L.41975.00	10,0	133,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M8	-	-	-	-	-	-	-	6.570
L.41975.03	10,0	133,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M8	x	-	-	10÷30	0.2	68/67	LED	7.650
L.41975.04	10,0	133,0	5	6	7	200	80	G1/8 i	G1/4 i	G1/4 i	M8	-	x	-	12÷24	0.5	67	LED	6.000

Dosing frequency depends on viscosity and input pressure of material.

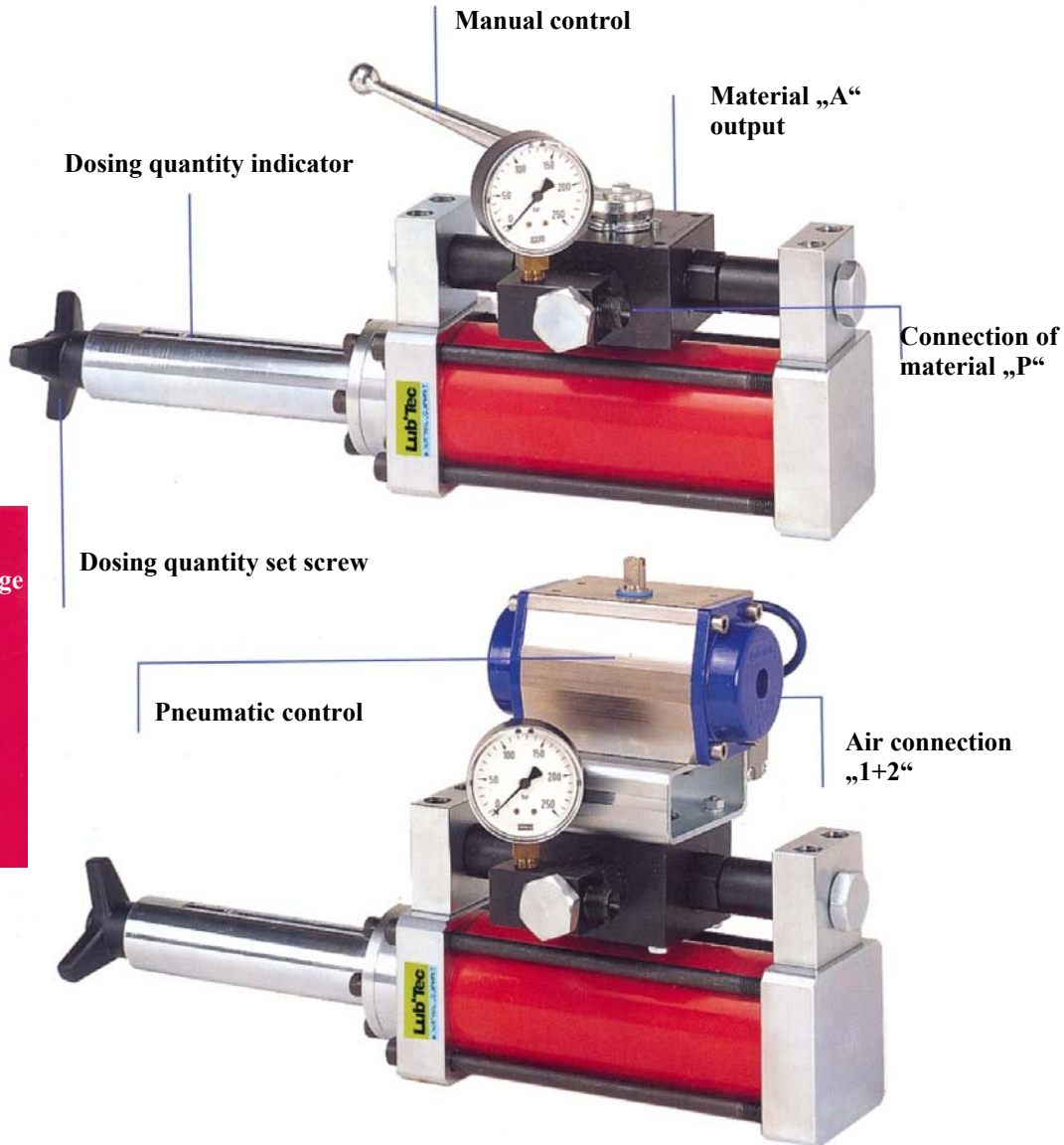
Valves can be used for lubricants up to NLGI Class 3 / max. 1 000 000 mPa.s

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Metering station – with manual or pneumatic control

(Dosing volume 30 ÷ 500cm³)

LubTec metering station – with manual or pneumatic drive are specially intended for dosing large quantities of material, such as for example filling large roller bearings.



High accuracy over the entire dosing range
 High quality as a standard
 Robust design
 Long lifetime

- Centralized lubrication systems
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- Mixing technology

Implementation of metering valves with a chamber

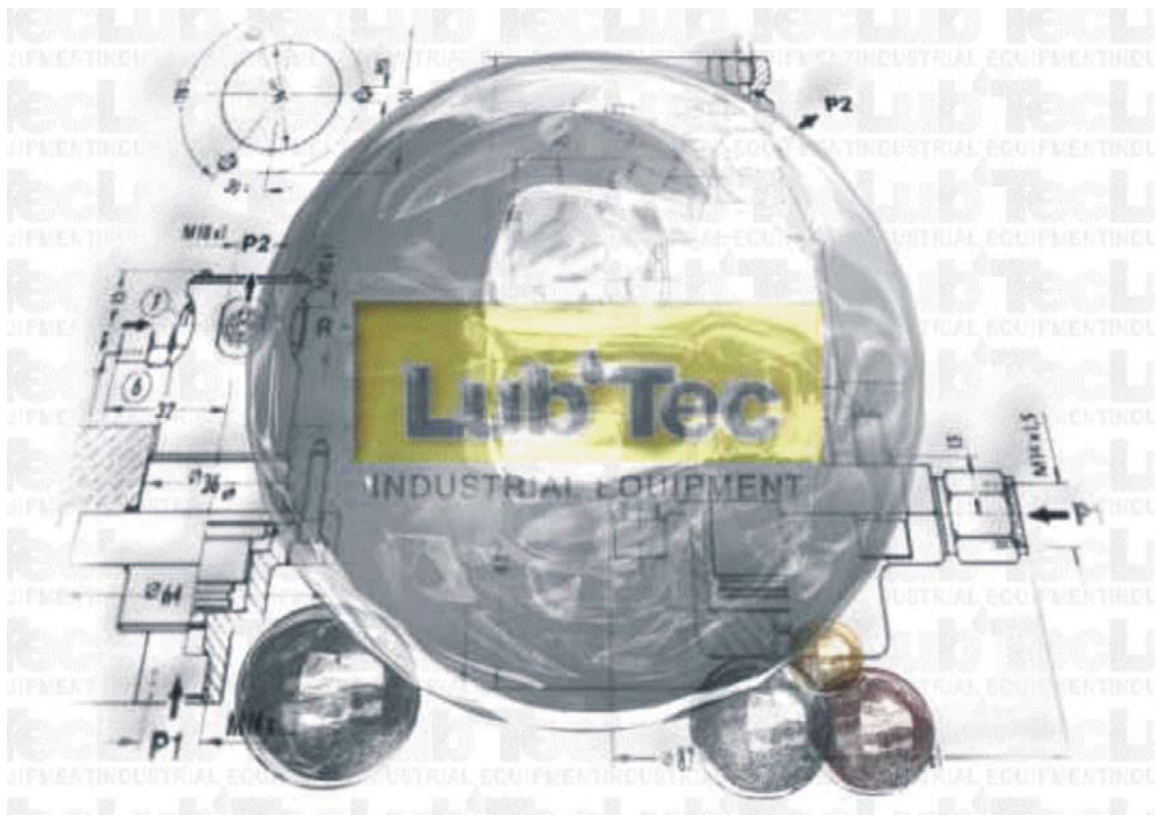
Catalogue no.	dosing (cm ³)		control pressure of air (bar)			material pressure (bar)		connecting threads			weight (kg)	
	from	to	minimum	nominal	maximum	maximum input	maximum output	air "1" "2"	material input "P" (i-inside thread)	material output "A" (a-outside thread)		fixing thread
Manually controlled dosing station												
L.41900.00	30,00	500,00	-	-	-	150	150	-	G3/8 a	G3/8 a	M8	14.8
Pneumatically controlled dosing station												
L.41905.00	30,00	500,00	5	6	7	150	150	G1/4i	G3/8 a	G3/8 a	M8	17.1

Dosing frequency depends on viscosity and input pressure of material.

Valves can be used for lubricants up to NLGI Class 3 / max. 1 000 000 mPa.s

- 💧 Centralized lubrication systems
- 💧 Metering technology
- 💧 Mixing technology

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