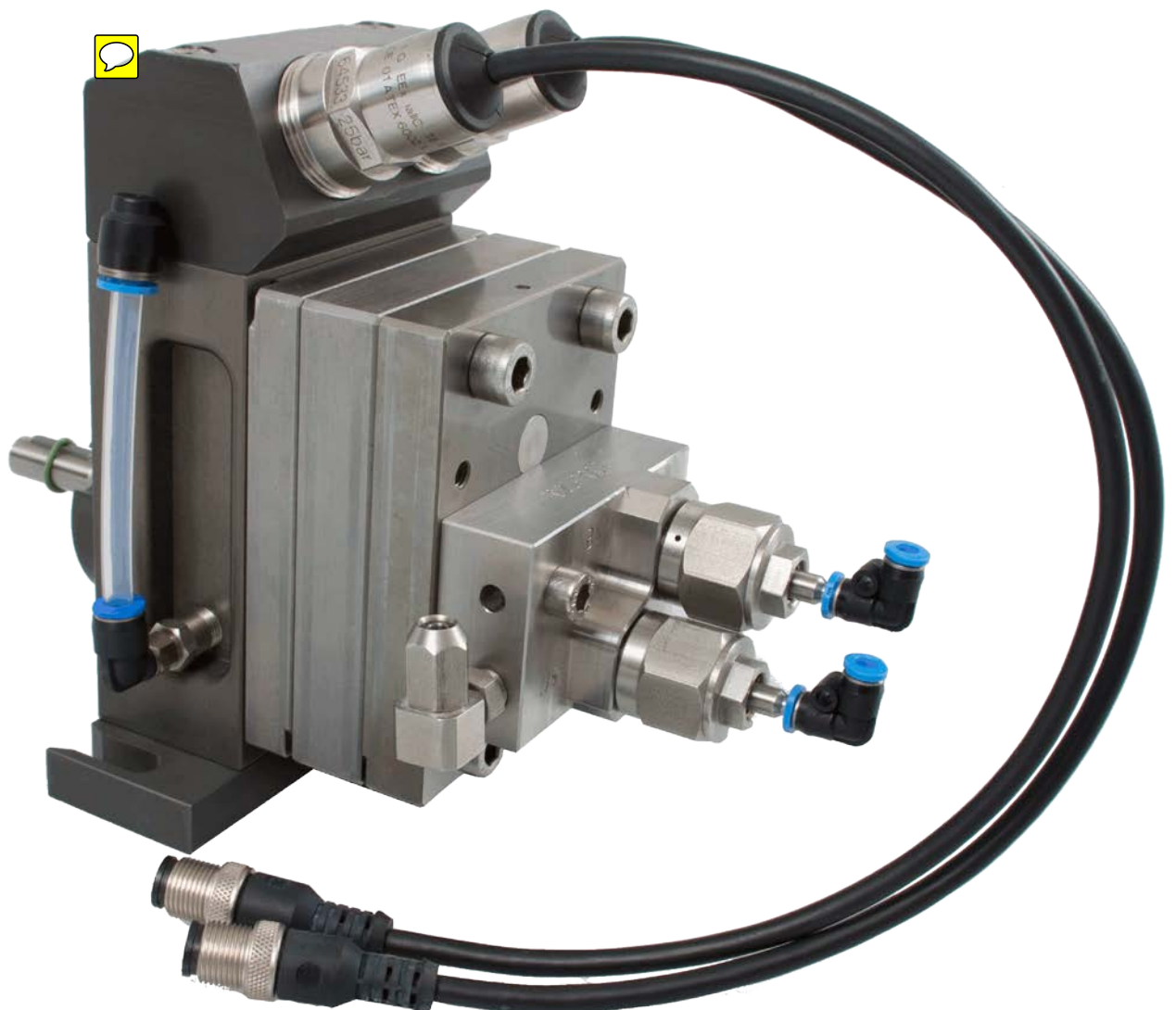




Media dosing



I.L.S. GmbH & Co. KG  
Im Weinfeld 1  
36148 Kalbach  
GERMANY

Tel. +49 6655 9860096  
Fax +49 6655 9860099

info@ils-lackiersysteme.de  
www.ils-lackiersysteme.de



## Contents

### **Gear pump units**

Standard Page 3 - 4

Light Page 5 - 6

### **Material pressure regulators**

For medium changer Page 7 - 9

For circulating line Page 10 - 12

Regulator Rail Page 13 - 14

**Runback regulators** Page 15 - 16



## Gear pump units Standard



Flushable



### Key Facts

- flushable / non flushable
- fast color change trough Bypass function, shaft- and axle flushing
- Gear precision and perfect finish
- **ATEX certified**
- Cleaning adapter with Bypass, shaft- and axle flushing
- Optimal flushability
- Integrated pressure sensors for inlet- and outlet pressure, no direct medium contact
- Maintenance-free shaft sealing with medium block function
- Pumpbody material 1.4571 or 1.4112
- Optional ADLC coating for material 1.4112
- Clockwise or clock-/anticlockwise

### Technical Data

Application area:	Waterborne paints, Solvent borne paints, Hardener
Output capacity (ccm/U) :	0,6 ccm / 0,9 ccm 1,2 ccm / 1,8 ccm 2,0 ccm / 3,0 ccm 6,0 ccm / 9,0 ccm 10,0ccm / 12,0ccm 16,0 ccm/ 20,0 ccm
Accuracy:	± 2%
Max. medium pressure (inlet):	15 bar
Max. medium pressure (outlet):	20 bar
Maximum pressure increase:	10 bar
Max. torque on shaft:	12 Nm
Ambient temperature:	-10°C – + 30°C
Viscosity:	1,0 bis 20.000 (mPas (mm2/s))
Pump speed with medium:	0 - 150 1/min
Max. medium temperature:	60°C
Rotation:	Clockwise or clock-/anticlockwise
Flushing time:	ca. 7 – 10 sec.
Solvent consumption:	80 – 120 ml pro flushing run
Purging Speed:	ca. 30 - 50 1/min



Non flushable





## Gear pump units

### Standard

### Variants

Options	Output capacity ( ccm / U )												
	0,6	0,9	1,2	1,8	2,0	3,0	6,0	9,0	10,0	12,0	16,0	20,0	
Pumpbody : 1.4112													
Pumpbody : 1.4571													
ADLC Coating													
Pumpblock kpl. (Alu)													
Medium adapter plate (Alu)													
Pressure sensor block (Alu)													
Pressure sensor													
Cleaning adapter (VA) 2 Ventile(VA)													
Cleaning adapter (VA) 3 Ventile(VA)													
Rotation R													
Rotation R /L													

## Pricing

1. **Pumpbody** \_\_\_\_\_ EUR  
 Description: \_\_\_\_\_  
 Material: \_\_\_\_\_  
 Rotation:  R  R/L
2. **ADLC-Coating** \_\_\_\_\_ EUR
3. **Pumpblock kpl.** \_\_\_\_\_ EUR  
 in Aluminium with stainless steel inserts at the medium area incl. base plate
4. **Medium adapter plate** \_\_\_\_\_ EUR  
 in Aluminium
5. **Pressure sensor block ( Keller Sensoren)** (other sensors on request) \_\_\_\_\_ EUR  
 in Aluminium
6. **Pressure sensor** \_\_\_\_\_ EUR  
 Standard: Keller (2 pieces pro unit)  
 Option: (on request)
7. **Cleaning adapter (Bypassblock)** \_\_\_\_\_ EUR  
 Variant 1: stainless steel incl. 2 valves (BY+WS)  
 Variant 2: stainless steel incl. 3 valves (BY+WS+AS)

**Total price gear unit:** \_\_\_\_\_ EUR



## Gear pump units Light



Flushable

### Key Facts

- Light construction, for example for robots with process arm
- flushable / non flushable
- fast color change through Bypass function, shaft- and axle flushing
- Gear precision and perfect finish
- Cleaning adapter with Bypass, shaft- and axle flushing
- Optimal flushability
- Integrated pressure sensors for inlet- and outlet pressure, no direct medium contact
- Maintenance-free shaft sealing with medium block function
- Pumpbody material 1.4571 or 1.4112
- Optional ADLC coating for material 1.4112
- Clockwise or clock-/anticlockwise

### Technical Data

Application area:	Waterborne paints, Solvent borne paints, Hardener
Output capacity (ccm/U) :	1,2 ccm / 3,0 ccm / 6,0 ccm / 9,0 ccm
Accuracy:	± 2%
Max. medium pressure (inlet):	15 bar
Max. medium pressure (outlet):	20 bar
Maximum pressure increase:	10 bar
Max. torque on shaft:	12 Nm
Ambient temperature:	-10°C – + 30°C
Viscosity:	1,0 bis 20.000 (mPas (mm <sup>2</sup> /s))
Pump speed with medium:	0 - 150 1/min
Max. medium temperature:	60°C
Rotation:	Clockwise or clock-/anticlockwise
Flushing time:	ca. 7 – 10 sec.
Solvent consumption:	80 – 120 ml pro flushing run
Purging Speed:	ca. 30 - 50 1/min



Non flushable



## Gear pump units

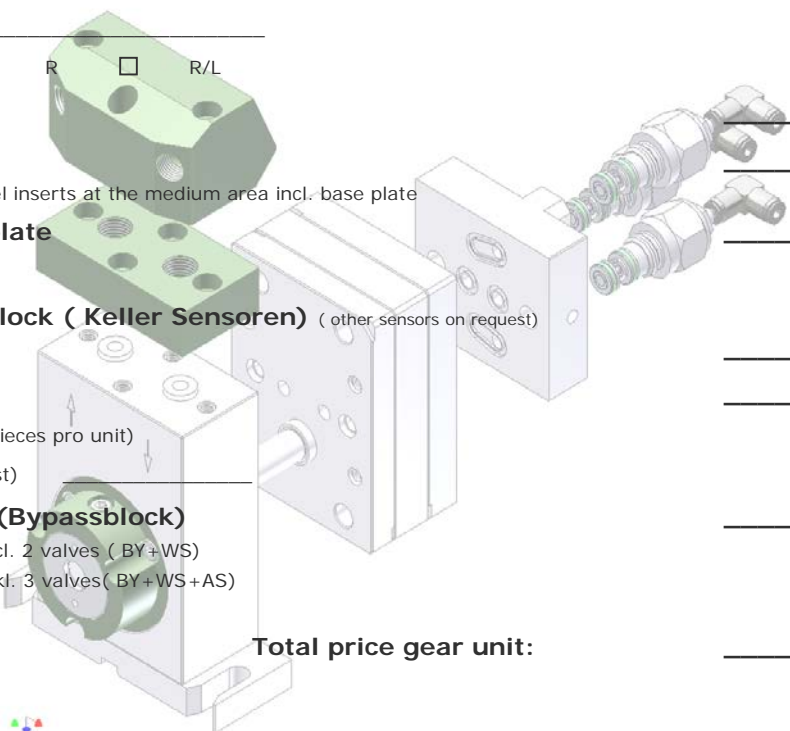
### Light

### Variants

Options	Output capacity ( ccm / U )										
	1,2	3,0	6,0	9,0							
Pumpbody : 1.4112											
Pumpbody : 1.4571											
ADLC Coating											
Pumpblock kpl. (POM)											
Medium adapter plate (POM)											
Pressure sensor block (POM)											
Pressure sensors											
Cleaning adapter (PETP) 2 valves (VA)											
Cleaning adapter (PETP) 3 valves (VA)											
Rotation R											
Rotation R /L											

## Pricing

1. **Pumpbody** \_\_\_\_\_ EUR  
 Description : \_\_\_\_\_  
 Material: \_\_\_\_\_  
 Rotation:  R  R/L
  2. **ADLC Coating** \_\_\_\_\_ EUR
  3. **Pumpblock kpl.** \_\_\_\_\_ EUR  
 in POM with stainless steel inserts at the medium area incl. base plate
  4. **Medium adapter plate** \_\_\_\_\_ EUR  
 in POM
  5. **Pressure sensor block ( Keller Sensoren)** ( other sensors on request) \_\_\_\_\_ EUR  
 in POM
  6. **Pressure sensor** \_\_\_\_\_ EUR  
 Standard: Keller (2 pieces pro unit)  
 Option: (on request)
  7. **Cleaning adapter (Bypassblock)** \_\_\_\_\_ EUR  
 Variant 1: in PETP incl. 2 valves ( BY+WS)  
 Variant 2: in PETP inkl. 3 valves (BY+WS+AS)
- Total price gear unit:** \_\_\_\_\_ EUR





## Material pressure regulators For medium changer



pneumatic



### Key Facts

- Pneumatic or manual construction
- Pneumatic controllable MPR are 1:1 diaphragm regulator
- Precise, consistent pressure regulation
- Lowest possible pressure loss
- Different control ranges / flow rate (0,1 ; 1 ; 2 )
- **ATEX certified**
- Optimal flushability, designed for fast flushing, minimized solvent consumption
- Small, compact design
- Double safety  
 ILS MPR comprise two diaphragms. Between this diaphragms there is a port used for leakage control. If the medium-diaphragm is damaged, the leakage will be observed in the hose connected to this port, before the air-diaphragm eventually may break. Thus a defect in the MPR is identified before medium may contaminate the air system.
- Easy maintenance

### Technical Data

Application area:	Waterborne paints, Solvent borne paints, Solvent	
Medium pressure (inlet):	12 bar Max.	
Medium pressure (outlet):	0,5 – 8 bar	
Medium connection:	G 1/8	
Air regulator pressure:	8 bar Max.	
Air regulator connection:	M5	
Leakage identification:	Bore with M5-thread	
Material:	Stainless steel, diaphragm in Teflon	
Dimensions w/o connections:	Ø 52 mm, Height 47 mm	(pneumatic)
	Ø 52 mm, Height 87 mm	(manual)
Weight:	ca. 560 g	(pneumatic)
	ca. 680 g	(manual)



manual





## Material pressure regulators For medium changer



### Variants

Item	Article-no.:	Article-Description	Material
1	8000-0005	Material pressure regulator, Size 0,1; pneumatic	1.4305
2	8000-0005-D	Material pressure regulator, Size 0,1; pneumatic, circulation	1.4305
3	8000-0005-K	Material pressure regulator, Size 0,1; pneumatic, plastic insert	1.4305
4	8000-0010	Material pressure regulator, Size 1; pneumatic	1.4305
5	8000-0010-D	Material pressure regulator, Size 1; pneumatic, circulation	1.4305
6	8000-0010-K	Material pressure regulator, Size 1; pneumatic, plastic insert	1.4305
7	8000-0010-D-K	Material pressure regulator, Size 1; pneumatic, circulation, plastic insert	1.4305
8	8000-0010-H	Material pressure regulator, Size 1; pneumatic, with hard metal insert and hard metal ball	1.4305
9	8000-0015	Material pressure regulator, Size 2; pneumatic	1.4305
10	8000-0015-D	Material pressure regulator, Size 2; pneumatic, circulation	1.4305
11	8000-0015-K	Material pressure regulator, Size 2; pneumatic, plastic insert	1.4305
12	8000-0030	Material pressure regulator, Size 2; manual, 1 – 7 bar	1.4305
13	8000-0030-K	Material pressure regulator, Size 2; manual, 1 – 7 bar plastic insert	1.4305
14	8000-0035	Material pressure regulator, Size 1; manual, 1 – 7 bar	1.4305
15	8000-0035-K	Material pressure regulator, Size 1; manual, 1 – 7 bar plastic insert	1.4305
16	8000-0040	Material pressure regulator, Size 1; pneumatic, direct mounting	1.4305
17	8000-0040-K	Material pressure regulator, Size 1; pneumatic, direct mounting, plastic insert	1.4305





## Material pressure regulators

For medium changer



### Variants

Item	Article-no.:	Article-Description	Material
18	8000-0044	Material pressure regulator, Size 0,1 / 2:1; pneumatic	1.4305
19	8000-0045	Material pressure regulator, Size 1 / 2:1; pneumatic	1.4305
20	8000-0046	Material pressure regulator, Size 2 / 2:1; pneumatic	1.4305
21	8000-0065	Material pressure regulator, Size 1 / 2:1 pneumatic	1.4305
21	8000-0080	Material pressure regulator , Size 1;Skoda pneumatisch	1.4305
22	8000-0145	Material pressure regulator, Size. 1; pneumatic, spring backwards	1.4305
23	8000-0145-K	Material pressure regulator, Size. 1; pneumatic, spring backwards, plastic insert	1.4305
24	8000-0150-H	Material pressure regulator, Size. 1; pneumatic, with hard metal insert and hard metal ball	1.4305
25	8000-0155-H-D	Material pressure regulator, Size. 1; pneumatic, with hard metal insert and hard metal ball, G ¼", circulation	1.4305
26	8000-0160-H	Material pressure regulator, Size. 1; pneumatic, with hard metal insert and hard metal ball	1.4305

Abbreviation:

K: Plastic insert

H: Hard metal insert

D: Circulation



## Material pressure regulators For circulating line



pneumatic



### Key Facts

- Pneumatic or manual construction
- Pneumatic controllable MPR are 1:1 diaphragm regulator
- Precise, consistent pressure regulation
- Lowest possible pressure loss
- Different control ranges / flow rate (0,1 ; 1 ; 2 )
- **ATEX certified**
- Optimal flushability, designed for fast flushing, minimized solvent consumption
- Maximum safety  
through block function. Control air and medium are separated from each other by one diaphragm and one control piston. If the diaphragm is damaged, the control piston protects the control air system against penetrating by the medium, and vice versa.
- Easy maintenance

### Technical Data

Application area:	Waterborne paints, Solvent borne paints, Solvent
Medium pressure (inlet):	20 bar Max.
Medium pressure (outlet):	15 bar Max.
Medium connection:	G 3/8
Air regulator pressure:	10 bar Max.
Air regulator connection:	G 1/8
Connection Manometer:	G 1/8
Leakage identification:	Bore
Material:	Stainless steel, diaphragm in Teflon
Dimensions w/o connections:	Ø 84 mm, Height 79 mm (pneumatic) Ø 79 mm, Height 130 mm (manual)
Weight:	ca. 950 g (pneumatic) ca. 1250 g (manual)



manual





## Material pressur regulators

For circulating

Variants



Item	Article-no.:	Article-Description	Material
1	8000-0019	Material pressure regulator, circulating line,Size.0,1; manual, 1 -15 bar, w/o manometer	1.4305
2	8000-0019-A	Material pressure regulator, circulating line,Size.0,1; manual, 1 -15 bar, w/o manometer, inlet regulator linear	1.4305
3	8000-0020	Material pressure regulator, circulating line,Size.1; manual, 1 -15 bar, w/o manometer	1.4305
4	8000-0020-A	Material pressure regulator, circulating line,Size.1; manual, 1 -15 bar, w/o manometer, inlet regulator linear	1.4305
5	8000-0020-A-H	Material pressure regulator, circulating line,Size.1; manual, 1 -15 bar, w/o manometer, inlet regulator linear, hard metal insert	1.4305
6	8000-0020-K	Material pressure regulator, circulating line,Size.1; manual, 1 -15 bar, w/o manometer, plastic insert	1.4305
7	8000-0020-K-A	Material pressure regulator, circulating line,Size.1; manual, 1 -15 bar, w/o manometer, plastic insert, inlet regulator linear	1.4305
8	8000-0021	Material pressure regulator, circulating line,Size.2; manual, 1 -15 bar, w/o manometer	1.4305
9	8000-0021-A	Material pressure regulator, circulating line,Size.2; manual, 1 -15 bar, w/o manometer, inlet regulator linear	1.4305
10	8000-0074	Material pressure regulator, circulating line,Size.0,1; manual, 1 -7 bar, w/o manometer	1.4305
11	8000-0074-A	Material pressure regulator, circulating line,Size.2; manual, 1 -7 bar, w/o manometer, inlet regulator linear	1.4305
12	8000-0075	Material pressure regulator, circulating line,Size.1; manual, 1 -7 bar, w/o manometer	1.4305
13	8000-0075-A	Material pressure regulator, circulating line,Size.1; manual, 1 -7 bar, w/o manometer, inlet regulator linear	1.4305
14	8000-0076	Material pressure regulator, circulating line,Size.2; manual, 1 -7 bar, w/o manometer	1.4305
15	8000-0076-A	Material pressure regulator, circulating line,Size.2; manual, 1 -7 bar, w/o manometer, inlet regulator linear	1.4305
16	8000-0114	Material pressure regulator, circulating line, Inlet- and outlet G 3/8", Size.0,1; pneumatic	1.4305



## Material pressure regulators For circulating line



### Variants

Item	Article-no.:	Article-Description	Material
17	8000-0115	Material pressure regulator, circulating line, Inlet- and outlet G 3/8", Size.1; pneumatic	1.4305
18	8000-0116	Material pressure regulator, circulating line, Inlet- and outlet G 3/8", Size.2; pneumatic	1.4305

#### Abbreviation:

A: Inlet regulator linear

K: Plastic insert

H: Hard metal insert



## Material pressure regulators Regulator rail



### Key Facts

- Regulator rails comprise pneumatic 1:1 diaphragm regulator
- Precise, consistent pressure regulation
- Lowest possible pressure loss
- Different control ranges / flow rate (0,1 ; 1 ; 2 )
- **ATEX certified**
- Optimal flushability, designed for fast flushing, minimized solvent consumption
- Small, compact design
- Modular assembling (2-fold, 4-fold, 6-fold, 8-fold)
- Double safety  
ILS MPR comprise two diaphragms. Between this diaphragms there is a port used for leakage control. If the medium-diaphragm is damaged, the leakage will be observed in the hose connected to this port, before the air-diaphragm eventually may break. Thus a defect in the MPR is identified before medium may contaminate the air system.
- Easy maintenance

### Technical Data

Application area:	Waterborne paints, Solvent borne paints, Solvent	
Medium pressure (inlet):	12 bar Max.	
Medium pressure (outlet):	0,5 – 8 bar	
Medium connection:	G 1/8	
Air regulator pressure:	8 bar Max.	
Air regulator connection:	M5	
Leakage identification:	Bore with M5-thread	
Material:	Stainless steel, diaphragm in Teflon	
Dimensions w/o connections:	100 mm x 47 mm x 61 mm	(2-fold rail)
	200 mm x 47 mm x 61	(4-fold rail)
Weight:	ca. 1300 g	(2-fold rail)
	ca. 2600 g	(4-fold rail)





## Material pressure regulators Regulator rail



### Variants

Item	Article-no.:	Article-Description	Material
1	8100-40	2-fold regulator rail for regulator Size. 1 ( 8000-0040 )	1.4305
2	8100-50	4-fold regulator rail for regulator Size. 1 ( 8000-0040 )	1.4305
3	8100-60	6-fold regulator rail for regulator Size. 1 ( 8000-0040 )	1.4305



## Runback regulators For circulating line



pneumatic



### Key Facts

- Pneumatic or manual construction
- Pneumatic controllable RCR are 1:1 or 4:1 diaphragm regulator
- Precise, consistent pressure regulation
- Lowest possible pressure loss
- Different control ranges / flow rate (1 ; 2 )
- **ATEX certified**
- Optimal flushability, designed for fast flushing, minimized solvent consumption
- Maximum safety  
trough block function. Control air and medium are separated from each other by one diaphragm and one control piston. If the diaphragm is damaged, the control piston protects the control air system against penetrating by the medium, and vice versa.
- Easy maintenance

### Technical Data

Application area:	Waterborne paints, Solvent borne paints, Solvent
Medium pressure (inlet):	20 bar Max.
Medium pressure (outlet):	15 bar Max.
Medium connection:	G 3/8
Air regulator pressure:	10 bar Max.
Air regulator connection:	G 1/8
Connection Manometer:	G 1/8
Leakage identification:	Bore
Material:	Stainless steel, diaphragm in Teflon
Dimensions w/o connections:	Ø 120 mm, Height 125 mm (pneumatic) Ø 79 mm, Height 130 mm (manual)
Weight:	ca. 1860 g (pneumatic) ca. 1250 g (manual)



manual





## Runback regulators For circulating line



### Variants

Item	Article-no.:	Article-Description	Material
1	8000-0025	Runback regulator, manual, 1-15 bar	1.4305
2	8000-0070	Runback regulator, up to 20 bar, hard metal insert, ball and circulating connector, pneumatic	1.4305
3	8000-0085	Runback regulator, pneumatic, In- and Outlet 3/8"	1.4305
4	8000-0090	Runback regulator, Size. 1, manual, 1 – 7 bar	1.4305
5	8000-0095	Runback regulator, up to 20 bar, pneumatic	1.4305
6	8000-0100	Runback regulator, up to 20 bar	1.4305
7	8000-0110	Runback regulator, manual, 1 – 15 bar with hard metal insert and ball	1.4305
8	8000-0135	Runback regulator, up to 20bar with hard metal insert and ball	1.4305