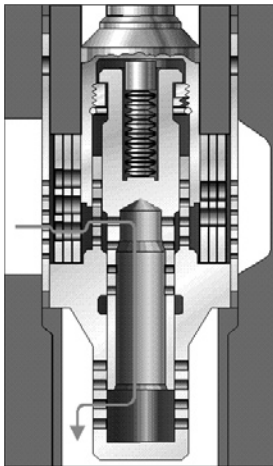




ZK 29/14 DN 50 with lift restriction (optional extra)



Radial stage nozzle with tandem shut-off  
for ZK 213

### Application

For the decrease of high pressure drops in industrial plants and power stations as:

- Level control valve
- Warm-up valve
- Level control valve
- Injection cooling valve
- Feedwater control valve
- Leak-off valve
- Start-up pot drain valve
- And more applications

### Features

- Extremely wear resistant
- Excellent sealing and control characteristic (EN 12266-1 Leckrate A)
- Variable valve characteristics (linear and equal-percentage)
- Easy assembly and inspection of nozzle insert
- Tandem shut-off for ZK 313 and ZK 213
- Low sound level
- Different actuators available

### Materials

Type	Body 1)	
ZK 29, DN 25, 50	13 CrMo 4 4	(1.7335)
ZK 29, DN 80, 100, 150	GS-17 CrMo 5 5	(1.7357)
ZK 210	13 CrMo 4 4	(1.7335)
ZK 313	16 Mo 3	(1.5415)
	A182 F1	(1.5423)
	10 CrMo 9 10	(1.7383)/A182 F22
	X 10 CrMo VNb 9 1 (P 91)	(1.4903)/A182 F91
ZK 213	16 Mo 3	(1.5415)
	WB 36	(1.6368)

1) Butt-weld ends of other material by welding of pipe ends possible.

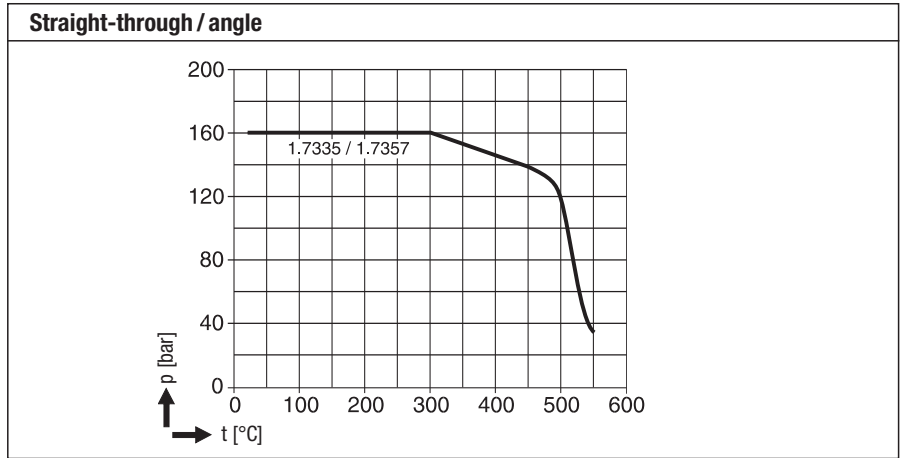
### Actuators

Type	ZK 29	ZK 210	ZK 313	ZK 213	ZK 610 ZK 613
Handwheel	●	●	●	–	–
Electric rotary actuator	●	●	●	●	●
Electric linear actuator	●	●	●	●	●
Electro-hydraulic linear actuator	–	–	●	●	●
Pneumatic actuator	●	●	●	–	●
Part-turn actuator	●	–	●	●	●

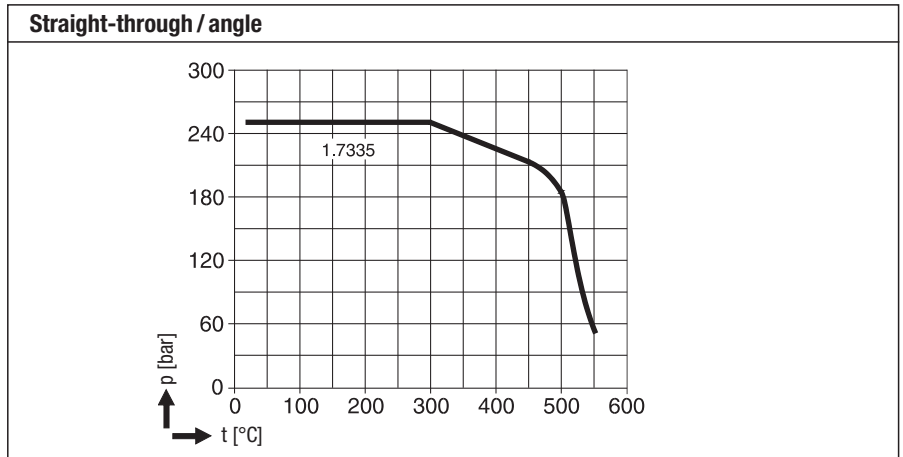
**Technical Data**

$K_{vs}$ -values [m<sup>3</sup>/h] (linear characteristics), design, pressure/temperature ratings

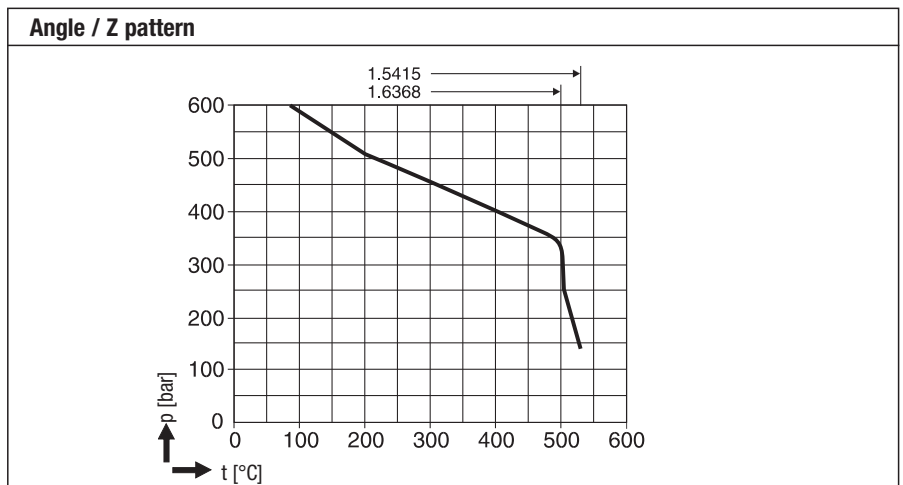
ZK 29				
DN	Δ p 100 bar			
25	0.7	1.4	2.1	
50	3	6	9	
65				
80	14	21	28	
100	20	33	46	
125				
150	70	100	130	
200				
250				
300				
350				
400				



ZK 210				
DN	Δ p 100 bar			Δ p 180 bar
25	0.8	1.5	2.3	0.5
50	3.3	6.5	10	2
65				
80	9.5	18	28	5
100				
125				
150				
200				
250				
300				
350				
400				



ZK 213 sizes 1-5										
DN	Δ p 300 bar					Δ p 560 bar				
	Bg. 1	2	3	4	5	1	2	3	4	5
25										
50										
65										
80	13					10				
100	13	26				10	20			
125	13	26	39			10	20	30		
150		26	39	60			20	30	46	
200			39	60	90			30	46	70
250				60	90				46	70
300					90					70
350										
400										



Adaptation of nominal sizes is possible



