

# **E..-S** Spraywater Control Valve







# E..-S - Spraywater Control Valve

Designed as a Z-body type valve, the E..-S's anti-cavitation trim design forces the flow of spraywater through a three (optional four) stage cascade and an additional outlet cage. The multistage seat is a capsuled design, keeping the flow of spraywater away from the valve body. This successfully eliminates damage to the valve body caused by erosion and ensures a faultless operation over many years of operation.

## **Key features**

- > Compact, robust design
- > Clamped trim for easy maintenance
- > Multi-step anti-cavitation trim
- > Bottom access body design
- > High rangeability

- > Designed for conditions up to 320 bar at 340°C
- > Tight shut-off (EN12266-1 Class B, MSSSP61 or ANSI/FCI 70.2 Cl. V)
- > Wide installed base



Compact, robust design

kv kvs

1.0

## **Benefits**

- > Top and bottom-guided valve stem design
  - Ensures excellent control of the medium throughout the range
  - Prevents the valve and piping from damage caused by stem vibrations
- > Bottom access valve body
  - Reduces maintenance costs to a minimum
  - All internal parts accessible without removing actuator

## Typical materials

	Standard Alternative			
Body	G20Mo5	A105, 16Mo3, 13CrMo4-4		
Bonnet	G20Mo5	A105, 16Mo3, 13CrMo4-4		
Outlet cage	X20CrMoV11-1			
Stem/plug	X19CrMoNbVN11-1			
Seat	X17CrNi16-2			

Note: Other materials upon request

# Applications

Normally used in spraywater applications where the pressure drop across the valve is rated as continuously high, such as:

- > High pressure bypass systems
- Superheater spraywater injection systems
- Reheater spraywater injection systems
- Other spraywater systems requiring control valves for accurate spraywater control under rugged operation



Typical valve characteristic



- Capsuled design to keep medium flow away from body

> Multistage seat

- Eliminates damage caused by erosion



## **Product specification**

- Body style
  Z-body, bottom access type
  Flanged bonnet
- Pipe connection
  Butt-welding according to customer's requirement
- Body material Cast- G20Mo5 (Others available on request)
- > **Design code** EN12516-2
- > Water data

Temperature range: Up to 340°C Inlet pressure: Up to 320 bar

## **General information**

### Flow capacity

Туре	No. of stages	KVs max.	CVs max.	KVs min.	CVs min.	Seat (mm)	Stroke (mm)
		1.95	2.28				
E22-3S	3	3.06	3.57	0.031	0.036	20	25
		4.70	5.48				
		4.70	5.48				
E32.3S	3	7.52	8.77	0.047	0.055	30	40
		11.80	13.77				
		9.40	10.97				
E45-3S	3	14.80	17.27	0.078	0.091	42	45
		23.50	27.42				
		23.50	27.42				
E56.3S	3	29.40	34.30	0.115	0.134	52	60
		37.60	43.86				

### Inlet/outlet pipe dimensions

Туре	Inlet/outlet			
E22-3S	DN40-DN65	1.5" - 2.5"		
E32.3S	DN80-DN125	3.0" - 5.0"		
E45-3S	DN80-DN125	3.0" - 5.0"		
E56.3S	DN100-DN150	4.0" - 6.0"		
Note: For other dimensions please contact IMI CCI				

#### **Outline dimensions**

Туре	A (mm)	B (mm)	C (mm)	Weight (kg)
E22-3S	320	97	870	90
E32.3S	400	160	1055	170
E45-3S	400	160	1220	210
E56.3S	460	200	1490	305

# > Trim

Flow to open Multistep cascade (3 stages, optional 4th) Downstream cage Unbalanced

- > Characteristic Equal percentage
- > Seat/stem tightness EN12266-1 Class B, MSS-SP61 or ANSI/FCI 70.2 Cl. V
- Actuation
  Double acting hydraulic actuator
  ASM-E
  Electric actuator upon request

> Serviceability

Replaceable stem/plug Replaceable trim and outlet cage Bolted bonnet Trim access opposite actuator

- > Options
  Transition pieces for large pipe
  diameters and material compatibility
- Orientation
  No restrictions as for the valve operating system



#### Contacts



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