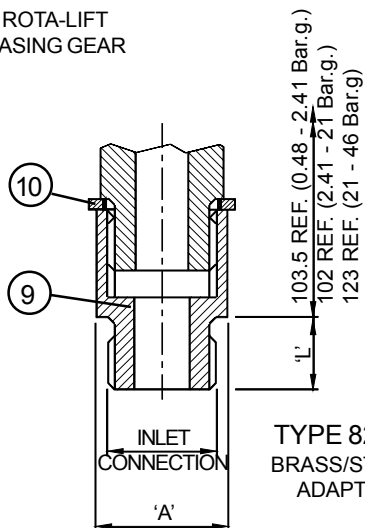


ILLUSTRATED SHOWING

**81810**

**TYPE R**  
ROTA-LIFT  
EASING GEAR



**TYPE 82810**  
BRASS/ST.STL.  
ADAPTOR

## PARTS LIST & MATERIAL SPECIFICATION

		81810, 81710, 81110	82810, 82710, 82110
1	BODY	BRASS BS EN 12164 CW614N	
2	ELASTOMER SEAL	VITON	
3	PLUNGER	BRASS BS EN 12164 CW614N	
4	SPRING	ST.STL BS EN 10207-3 1.4310 (302)	
5	ADJUSTER	BRASS BS EN 12164 CW614N	
6	LIFTING CAP	BRASS BS EN 12164 CW614N	
7	NAMEPLATE	AL.ALLOY	
8	WIRE & SEAL	ST.STL & LEAD	
9	ADAPTOR	N/A	ST.STL.
10	DOWTY SEAL	N/A	VITON

## APPROVALS

AD 2000-Merkblatt A2: (TÜV GERMANY) TÜV.SV.12-893.10.D/G. \* .p. [\* = Variable  $\alpha_w$  below 3 Bar.g.]  
Designed in accordance with BS EN ISO 4126-1 & BS 6759 Part 2, but not approved.

P.E.D.97/23/EC

Type examination module B, Cert. No. 01 202 642-B-10015

Quality management system module D, Cert. No. EDS 0002011/01

Meeting the requirements of the A.S.M.E Boiler & Pressure Vessel code section VIII for air/gas.

UV Cert. of Authorisation: 35757

Capacities certified by the National Board of Boiler & Pressure Vessel Inspectors.

## TECHNICAL DATA

Relieving pressure	= Set pressure +10% (0.1 Bar.g below 1.0 Bar.g.)
Reseating pressure	= Set pressure -10% (0.3 Bar.g below 3.0 Bar.g.)
Maximum Set pressure	= 46.0 Bar.g
Minimum Set pressure	= 0.48 Bar.g (A.S.M.E. 2.4 Bar.g.)
Flow area	= 78.54 mm <sup>2</sup>
Inlet bore diameter	= 10 mm
Temperature range	= -15°C to 200°C
Derated coefficient of discharge $\alpha_w$	= 0.67 From 2.4 Bar.g. Below 2.4 Bar.g see graph.
NB Certified rated slope	= 1.66 scfm/psia
Minimum lift at 10% over pressure	= 2.1mm

FOR FURTHER TECHNICAL INFORMATION, CONVERSION FACTORS, INSTALLATION AND OPERATING INSTRUCTIONS ETC. SEE TECHNICAL INFORMATION SECTION.

SHEET 1 OF 3 SHEETS



**SEETRU LIMITED**

ALBION DOCKSIDE WORKS, BRISTOL. BS16UT

TELEPHONE +44 (0) 117 927 9204, FAX +44 (0) 117 929 8193

www.seetru.com enquires@seetru.com

10mm Nom. Bore BRASS CONSTRUCTION  
DIRECT SPRING LOADED ATMOSPHERIC  
DISCHARGE SAFETY VALVE FOR  
COMPRESSED AIR OR GASES

SERIES E VALVE  
TYPE 81810, 81710, 81110  
BRASS  
TYPE 82810, 82710, 82110  
BRASS/ST.STL. ADAPTOR

**FLOW CHART (P.E.D.)**

- TO CALCULATE INTERMEDIATE FLOWS SEE TECHNICAL INFORMATION SECTION  
 - FOR GREATER FLOWS REFER TO 13mm BORE TYPE 81813 DATA SHEET, FOR LOWER FLOWS REFER TO 8mm BORE TYPE 81808 DATA SHEET

SET PRESSURE (Bar.g)	PRESSURE RANGE																						
	BELOW 2.4 BAR.G			ABOVE 2.4 BAR.G																			
	0.48	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	20	25	30	35	40	45	46
RATED DISCHARGE CAPACITY IN ACCORDANCE WITH BS EN 4126, AIR AT 15°C AND 1013 mbar Std.Litres/s	18	23	33	43	54	65	77	88	100	111	122	133	144	155	167	178	232	288	344	400	455	511	522
RATED DISCHARGE CAPACITY IN ACCORDANCE WITH TÜV, AIR AT 0°C AND 1013mbar Normal m³/h	28.5	66.7	108	154.6	194.0	233.5	272.8	312.3	351.7	391.2	430.6	470.0	509.4	548.9	588.3	627.7	824.9	1022	1219	1416	1613	1811	1850

**FLOW CHART (A.S.M.E.)**

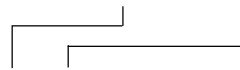
SET PRESSURE Psig	35	40	50	60	70	80	90	100	150	200	250	300	350	400	450	500	550	600	650	667
RATED DISCHARGE CAPACITY IN ACCORDANCE WITH A.S.M.E. AIR AT 60°F AND 14.7 psia/scfm	88	97	116	134	152	170	189	207	298	390	481	572	664	755	846	937	1029	1120	1211	1242

**VALVE TYPE OPTIONS:**

- 81810, 82810 = TUV, B.S. (P.E.D.)
- 81710, 82710 = A.S.M.E. & N.B.
- 81110, 82110 = A.S.M.E. & N.B., TUV, B.S. (P.E.D.)

**VALVE SELECTION CHART**

INLET CONNECTION	ORDERING CODE	TOP FITTING CODE	81 TYPE DIM'N 'A' A/F HEX (mm)	81 TYPE HIGH P DIM'N 'A' A/F HEX (mm)	82 TYPE DIM'N 'A' A/F HEX (mm)	82 TYPE HIGH P DIM'N 'A' A/F HEX (mm)	81 TYPE 82 TYPE INLET THRD DIM'N 'L'
		R					
G 1/2 ( 1/2" BSP PARALLEL )	81810	0873					14
R 1/2 ( 1/2" BSP TAPER )	81710	0883	24	27.9	25.6	27.9	15
1/2" NPT	81110	0893					15
G 3/4 ( 3/4" BSP PARALLEL )	82810	0903					14
R 3/4 ( 3/4" BSP TAPER )	82710	0913	30	30	30	30	19
3/4" NPT	82110	0923					19



Example: Ordering code 81810 0913 is:- Wirelocked Rota-Lift type construction, with 10mm bore, 3/4"BSP Taper inlet connection and Viton® seals.

Note: This range of products are available with Viton® seals only.



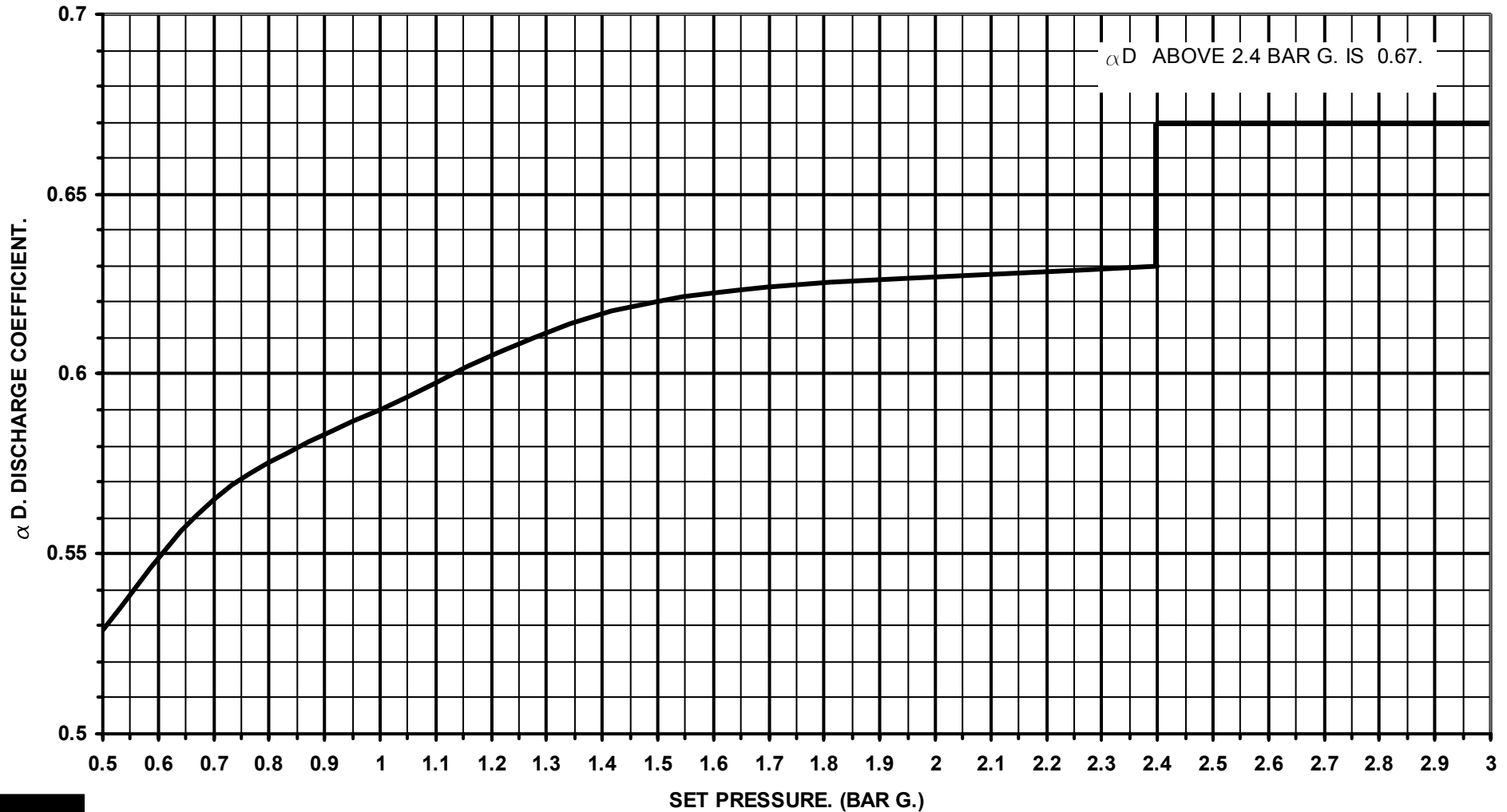
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10mm Nom. Bore BRASS CONSTRUCTION  
 DIRECT SPRING LOADED ATMOSPHERIC  
 DISCHARGE SAFETY VALVE FOR  
 COMPRESSED AIR OR GASES

SHEET 2 OF 3 SHEETS

SERIES E VALVE  
 TYPE 81810, 81710, 81110  
 BRASS  
 TYPE 82810, 82710, 82110  
 BRASS/ST.STL.ADAPTOR

**DISCHARGE COEFFICIENT FOR VALVE 81810 BELOW 2.4 BAR G. SET PRESSURE.**



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SHEET 3 OF 3 SHEETS