

## PARTS LIST AND MATERIAL SPECIFICATION

		64610, 64710, 64110
1	INLET SEAT	ST.STL. BS EN 10088-3 1.4404 (316L)
2	PLUNGER/SEAL	ST.STL. BS EN 10088-3 1.4404 (316L) / TO SUIT APPLICATION
3	BODY	ST.STL. BS EN 10283 1.4408 (316) SA-351 CF8M
4	SPRING	ST.STL. BS EN 10270-3 1.4310 (302)
5	SPINDLE	ST.STL. BS EN 10088-3 1.4057 (431)
6	ADJUSTER	ST.STL. BS EN 10088-3 1.4401 (316)
7	CAP	ST.STL. BS EN 10088-3 1.4401 (316)
8	COVER	ST.STL.
9	WIRE & SEAL	ST.STL & LEAD

## APPROVALS

Ad-Merkblatt A2: (TÜV Germany), Ref- TÜV.SV.03-728.9,5.D/G.0,78.p.  
P.E.D.97/23/EC.

Type examination module B, Cert. No. 01 202 11-B-00016

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

Designed in accordance with BS6759 & BS EN ISO 4126-1

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% (0.3 Bar.g. below 1.55 Bar.g)  
Reseating pressure = Set pressure -10% (0.3 Bar.g minimum)  
Maximum set pressure = 55.2 Bar.g (12 Bar.g Steam)

SUBJECT TO CLAMP PRESSURE RATING

Minimum set pressure = 0.48 Bar.g (TÜV & A.S.M.E. 1.55 Bar.g)

Flow area = 70.9 mm<sup>2</sup>

Inlet bore diameter = 9.5 mm

BS Derated coefficient of discharge  $K_{dr}$  = 0.78

TÜV Derated coefficient of discharge  $\alpha_d$  = 0.78

NB Certified rated slope = 1.71 scfm/psia

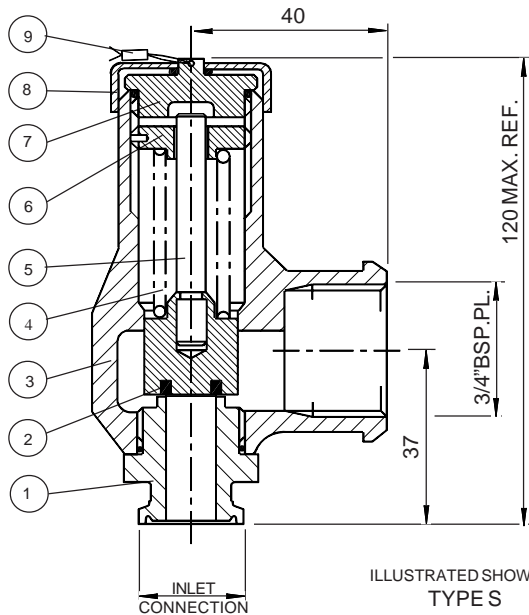
BS Minimum lift at 10% overpressure = 3.5 mm

Temperature Range = Subject to seal material.

Maximum permissible built up back pressure = 10% of set pressure at or below which flow is not reduced.

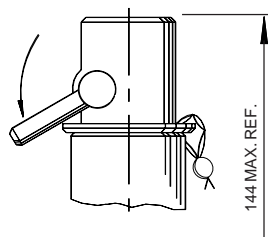
Stable operation on flows down to 50% of valve rated capacity.

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



ILLUSTRATED SHOWING  
TYPE S  
SEALED  
NO EASING GEAR

### ALTERNATIVE TOP FITTING



TYPE SL  
SEALED LEVER  
EASING GEAR



**SEETRU LIMITED**

ALBION DOCKSIDE WORKS, BRISTOL. BS1 6UT

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

www.seetru.com enquires@seetru.com

CLEAN SERVICE 10mm Nominal Bore  
DIRECT SPRING LOADED ENCLOSED  
DISCHARGE SAFETY VALVE  
FOR COMPRESSED AIR, GASES & STEAM

SHEET 1 OF 3 SHEETS

ENCLOSED DISCHARGE  
10mm NOMINAL BORE SERIES M/2

TYPE 64610, 64710, 64110 ST.STL.

## FLOW CHART (P.E.D.) AIR

TO CALCULATE INTERMEDIATE FLOWS SEE TECHNICAL INFORMATION SECTION

FOR GREATER FLOWS REFER TO 13mm BORE TYPE 64613 DATA SHEET, FOR LOWER FLOWS REFER TO SEETRU.

SET PRESSURE Bar.g	NOT TÜV APPROVED		PRESSURE RANGE												
	0.48	1	1.55	2	3	4.5	5	10	15	20	30	33	40	50	55.2
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH BS EN 4126, AIR AT 15°C AND 1013 mbar Std. Litres/s	16	22	29	34	46	63	69	128	187	245	363	398	480	598	659
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH TÜV, AIR AT 0°C AND 1013 mbar Normal m³/h	55	79.5	102	121	162.4	224.5	245.3	452.4	659.5	866.7	1280.9	1405.2	1695.2	2109.5	2325

## FLOW CHART (A.S.M.E.) AIR

SET PRESSURE Psig	23	30	40	50	75	100	150	200	300	400	500	600	700	800
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH A.S.M.E. AIR AT 60°F AND 14.7 psia/scfm	70	82	100	119	166	213	307	401	589	777	966	1154	1342	1530

\* DISCHARGING TO ATMOSPHERE

## FLOW CHART (P.E.D.) SATURATED STEAM

SET PRESSURE Bar.g	0.48	1	1.55	2	3	4	5	6	7	8	9	10	11	12
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH BS EN 4126 STEAM Kg/hr	45	61	76	95	126	158	189	220	251	282	313	344	374	405
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH TÜV STEAM Kg/hr	-	-	79	93	125	157	189	220	253	285	316	348	380	412

## VALVE SELECTION CHART

Standard seat sizes shown, other sizes may be available

INLET CONNECTION	OUTLET CONNECTION	ORDERING CODE	TOP FITTING CODE	
			S	SL
1/2" CLAMP	G 3/4 ( 3/4" BSP PARALLEL )	64610A	5748	5838
3/4" CLAMP		64710A	5758	5848
1" CLAMP		64110A	5768	5858

Example: Ordering code 64610A 5748 is St.Stl construction. Sealed, no easing gear, type S, with 1/2" Clamp inlet connection, 3/4" BSP parallel outlet connection with Perfluorelastomer (Isolast®) seals & wirelocked.

Seal material: Last digit of ordering code calls up Perfluorelastomer (Isolast®) seal.

When other material is required last digit changes to:

- 6. ETHYLENE PROPYLENE Temperature range (-40°C to 150°C)
- 8. PERFLUOROELASTOMER (ISOLAST®) Temperature range (-15°C to 190°C)

For advice on seal material selection refer to Technical Information Section A.

## APPLICATION

- Safety valve for food industry & other hygienic applications including clean steam & gas applications.
- For protection of installations in which clean service is required only on the inlet.  
e.g. normal operation wetted parts.
- Generally in accordance with 'ASME BPE 2005 Bioprocessing Equipment'.
- Economic design giving small compact size, with high discharge capacities.
- Elastomer soft sealing for high level sealing tightness at operating pressure, with minimum leakage for cost effective operation.

## SURFACE FINISH

### Process Contact Surface

In accordance with ASME BPE-2005 Table SF-5.

Surface designation R<sub>a</sub> Max 15 μinches, 0.4 μm, Electropolished.

### Other Surfaces

Not greater than 60 μinches, 1.5 μm.

## SEAL MATERIAL

Elastomer soft sealing specifically developed for food & pharmaceutical industries.

Compliant to

- FDA 21 CFR 177.2600
- United States Pharmacopoeia (USP) Class VI
- SP3A Sanitary Standards for Multiple Use Rubber Dairy Equipment No 18-03.

## CONNECTIONS

### Inlet

Tri-Clamp® compatible generally in accordance with ASME BPE 2005 & BS 4825-3.

### Outlet

Pipe threads (G) where pressure tight joints are not made on the thread in accordance with BS EN ISO 228. For other threads & clamp connections consult Seetru.

## VALVE TYPE OPTIONS:

- 64610 = TUV, B.S. (P.E.D.)
- 64710 = A.S.M.E. & N.B.
- 64110 = A.S.M.E. & N.B., TUV, B.S. (P.E.D.)



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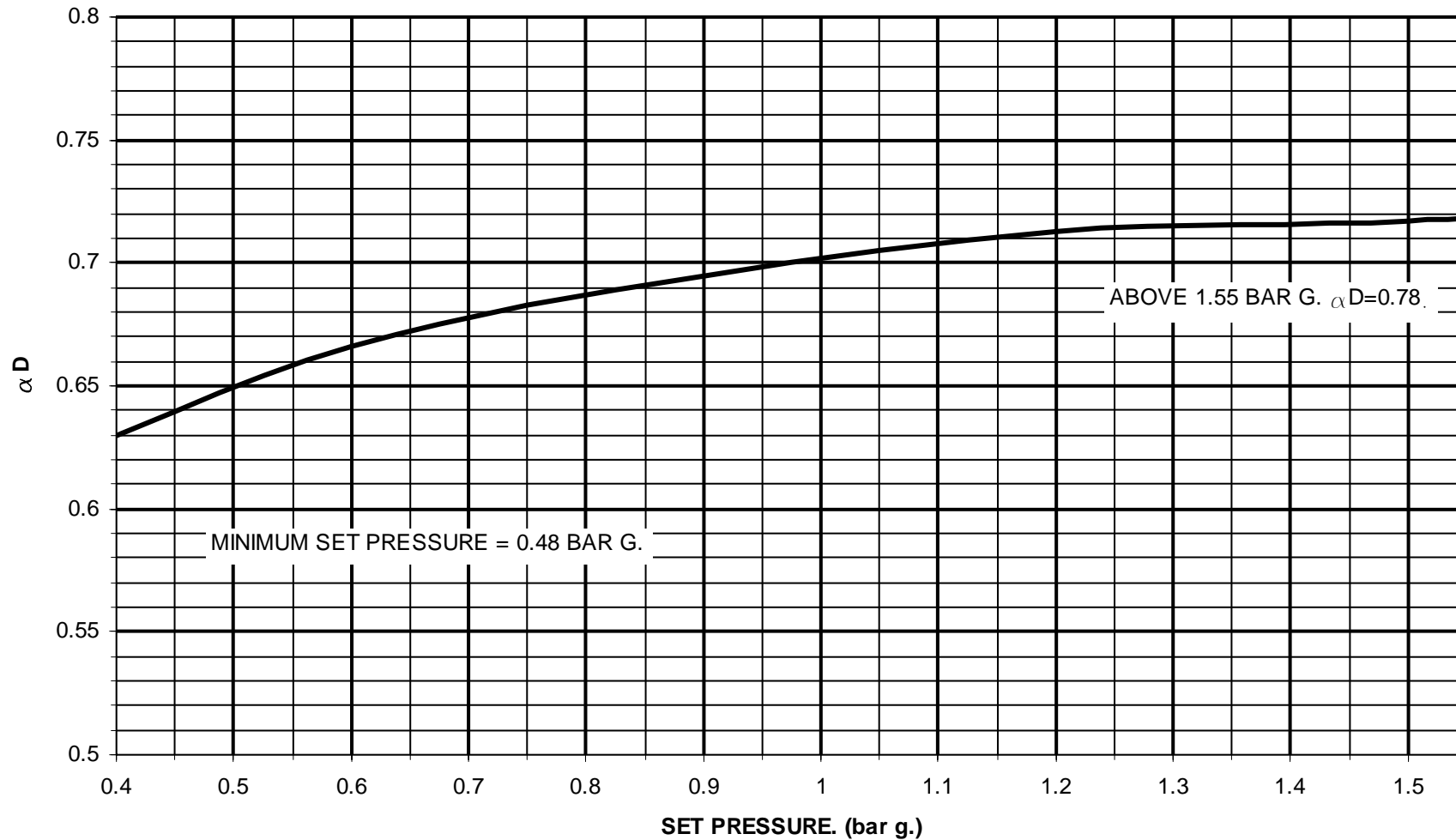
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SHEET 2 OF 3 SHEETS

ENCLOSED DISCHARGE  
 10mm NOMINAL BORE SERIES M/2  
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**DERRATED DISCHARGE COEFFICIENT FOR SET PRESSURES BELOW 1.55 BAR G.**



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