

PARTS LIST & MATERIAL SPECIFICATION

	93620	94620
1 SEAT	BRASS	ST.STL.
2 DISC	ST.STL. 316	ST.STL. 440B
3 BALL	ST.STL.	
4 DISC HOLDER	ST.STL.	
5 PLUNGER	ST.STL.	
6 BODY	ST.STL.	
7 SPRING HOUSING	BRASS	ST.STL.
8 SPRING	ST.STL.	
9 ADJUSTER	BRASS	ST.STL.
10 SPINDLE	ST.STL.	
11 CAP	BRASS	ST.STL.
12 WIRE & SEAL	ST.STL. & LEAD	
13 LEVER	BRASS	ST.STL. *
14 O'RING	TO SUIT APPLICATION	

* TYPE SL ONLY.

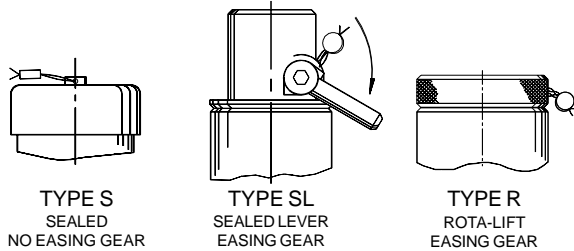
APPROVALS

Designed in accordance with BS 6759 (but not approved) & ISO 4126. TÜV Approved:-
 Ref- TÜV.SV.98-1016.20.D/G.0,80.p ; For 4-28 Bar.g. Below 4 Bar.g. see 'α_D vs Set Pressure' chart.
 93620 type materials meet the requirements of BAM (Germany) for oxygen service.
 P.E.D. 97/23/EC
 Type examination module B, Cert. No. 01 202 111-B-00017
 Quality management system module D, Cert No. EDS 0002011/01

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 = 28.0 Bar.g.
 Minimum set pressure = 0.3 Bar.g.
 Flow area = 314 mm²
 Inlet bore diameter = 20 mm
 TÜV Derated coefficient of discharge α_D = 0.80, Below 4.0 Bar.g. see 'α_D vs Set Pressure' chart.
 Leak tightness at 90% set pressure to API 527 and in accordance with BS6759 Part 3 1984, Table 9 Grade 2.
 Greater leak tightness may be achieved on request.
 Maximum temperature = 250°C Note: For sealed top fittings, max. temp. dependent on seal material.
 Minimum temperature = -196°C subject to material specification.
 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.

ALTERNATIVE TOP FITTINGS



FLOW CHART

- TO CALCULATE INTERMEDIATE FLOWS SEE TECHNICAL INFORMATION SECTION
 - FOR GREATER FLOWS REFER TO 25mm BORE TYPE 93625 DATA SHEET. FOR LOWER FLOWS REFER TO 15mm BORE TYPE 93615 DATA SHEET.

SET PRESSURE Bar.g	0.3	0.5	1.0	2.0	3	4	5	6	7	8	9	10	15	20	25	28
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH BS6759, AIR AT 15°C AND 1013 mbar std. Litres/s	52.2	66.8	95	157.6	208	262	315	368	421	474	527	580	846	1112	1378	1537
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH BS6759 PART 1, STEAM Kgh	140	182	275.7	429.8	569	714.2	859.3	1004.5	1149.6	1294.8	1439.9	1585	2310.8	3036.5	3762.2	4197.6
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH TÜV, AIR AT 0°C AND 1013 mbar Normal m ³ /h	174.4	238	354	553.8	738.4	926.7	1115	1303.3	1491.6	1679.9	1868.3	2056.6	2998.2	3939.8	4881.4	5446.4
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH TÜV, STEAM Kgh	145.3	188.7	278.4	437.8	576.3	718	859.8	1000	1141.8	1282.8	1423.1	1562.6	2261.3	2956.8	3654.5	4077.6

* DISCHARGE TO ATMOSPHERE



SEETRU LIMITED

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20mm Nominal Bore METAL SEAL
 DIRECT SPRING LOADED ENCLOSED
 DISCHARGE SAFETY VALVE FOR
 COMPRESSED AIR OR GASES

SHEET 1 OF 3 SHEETS

ENCLOSED DISCHARGE
 20mm NOMINAL BORE SERIES
 TYPE 93620 BRASS
 TYPE 94620 ST.STL.

VALVE SELECTION CHART

Standard thread sizes shown, other sizes may be available

INLET CONNECTION	OUTLET CONNECTION	ORDERING CODE	TOP FITTING CODE			
			S	SL	L	R
G 1 (1" BSP PARALLEL MALE)	G 2 (2" BSP PARALLEL)	93620A	133	413 #	333 #	213
R 1 (1" BSP TAPER MALE)		94620A	134	414 #	334 #	214
G 3/4 (3/4" BSP PARALLEL FEMALE)		93620D 94620D	130	410 #	330 #	210

Example 1: Ordering code 93620A 333 0 is brass seated, Lever lift type 'L', with 1" BSP parallel MALE inlet connection, 2" BSP parallel outlet connection.

Example 2: Ordering code 93620D 330 0 is brass seated, Lever lift type 'L', with 3/4" BSP parallel FEMALE inlet connection, 2" BSP parallel outlet connection.

LEVER LIFTING VALVES

**FOR 94620 VALVES, SEALED LEVER TYPE 'SL' AVAILABLE ONLY.
FOR 93620 VALVES, OPEN LEVER TYPE 'L' AVAILABLE ONLY.**

O'RING SEAL CHART

O'RING MATERIAL	10th DIGIT	MAX. STATIC TEMP. °C	MIN. STATIC TEMP. °C
NITRILE	1	150	-30
VITON®	3	250	-20
SILICONE	4	250	-50
NEOPRENE	5	120	-40
E.PROPYLENE	6	150	-40
* P.T.F.E.	7	250	-196

Note: For valve type 'L', o'rings not fitted. '0' indicates that no o'rings are required. For valve types 'S' & 'SL', digits '1 - 7' indicates the required o'ring material dependent on the maximum / minimum static temperature.

Example: Ordering code 93620A 413 3 is brass seated, Sealed leverlift type 'SL', with 1" BSP parallel MALE inlet connection, 2" BSP parallel outlet connection, with Viton® o'ring seals.

*** FOR CRYOGENIC SERVICE TYPE 'S' VALVES ONLY.
TYPE 94620 VALVES ARE NOT SUITABLE FOR
CRYOGENIC SERVICE. USE 93620 TYPE 'S'.**



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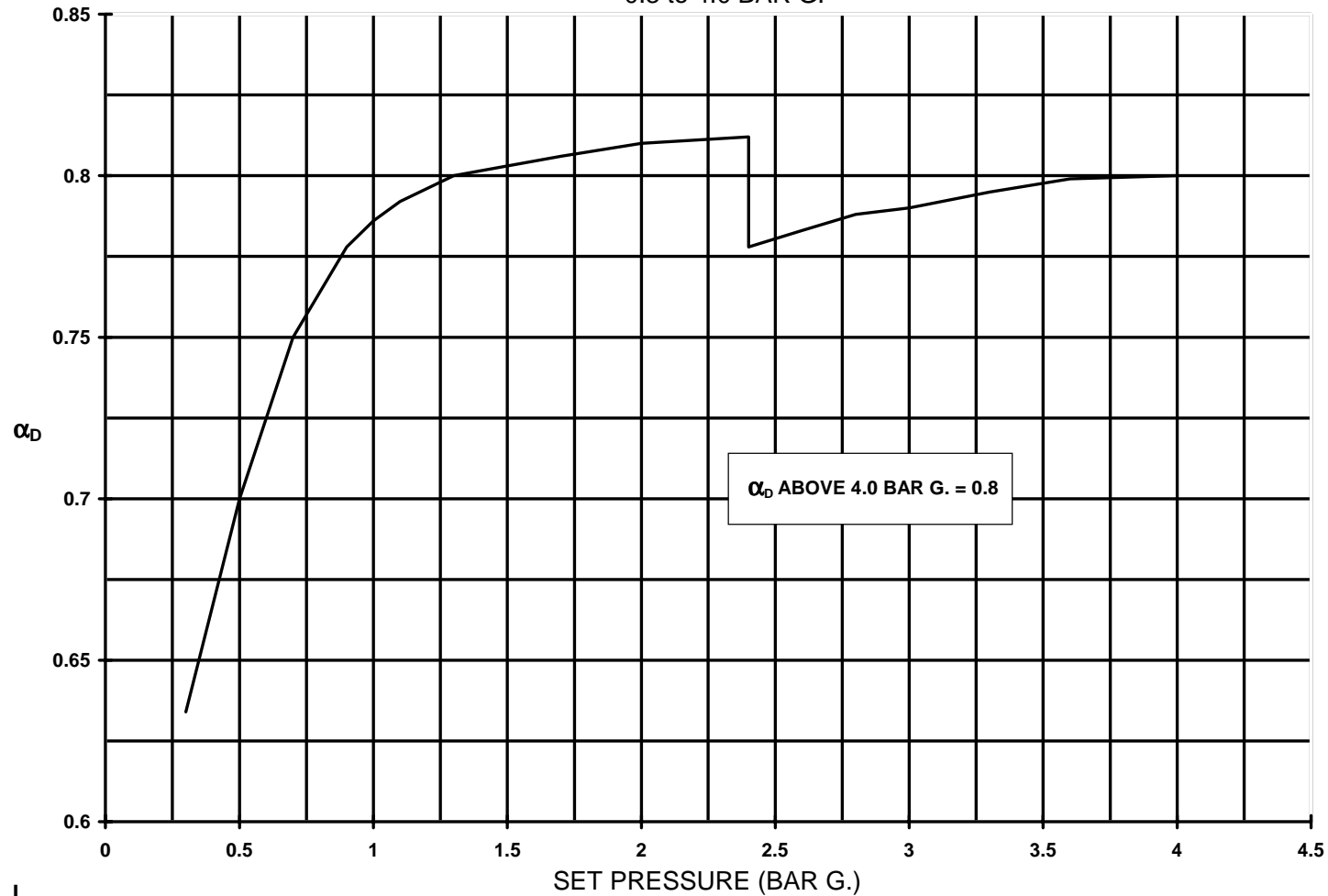
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20mm NOMINAL BORE SERIES
TYPE 93620 BRASS
TYPE 94620 ST.STL.

SHEET 2 OF 3 SHEETS

α_D vs SET PRESSURE CHART
SEETRU SAFETY RELIEF VALVE 93620 / 94620
0.3 to 4.0 BAR G.



α_D ABOVE 4.0 BAR G. = 0.8



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SHEET 3 OF 3 SHEETS

ENCLOSED DISCHARGE
20mm NOMINAL BORE SERIES

TYPE 93620 BRASS
TYPE 94620 ST.STL.