



TAIWAN VALVE COMPANY LTD.
1F, NO. 19, LANE. 52, SEC. 3, JE-HO ROAD
TAICHUNG, TAIWAN, R.O.C.
TEL: 886-4-2466658 (REP.) FAX: 886-4-2466698
E-MAIL: twvalve@ms19.hinet.net.tw

TEST CERTIFICATE

Page: 1 of 8
Purchaser: ECONOSTO NEDERLAND B.V.
Order #: 9267719
Date of Delivery: FEB. 8, 1999
Certificate According to EN 10204/DIN 50049-3.1B
Commodity: ECON 3-PIECE BALL VALVE
Specification: GS-C25N
Our Invoice #: ECH-7214
P.I. #: ECH-E812 (A)
Date of Inspection: FEB. 5, 1998
Material: 1.0619

Pos. 14, 3 St.

Item No.	Heat No.	Description	Q y (PCS)	Pressure Test (Kg/cm ²)			Test Result
				Hydrostatic		Air	
				Shell	Seat	Seal	
1	8AL4	FIG.7422A BODY 1/2"RB					
2	A4	FIG.7422A CAP 1/2"RB					
3	X 8AL4	FIG.7422A BODY 1"RB					
4	X 8644	FIG.7422A CAP 1"RB					
5	8944	FIG.7422A CAP 1"RB					

CHEMICAL COMPOSITION (%)

Heat No.	C	Si	Mn	P	S	Ni	Cr	Mo
	0.18 ~ 0.23	0.3 ~ 0.6	0.5 ~ 0.8	Max 0.03	Max 0.03	Max 0.5	Max 0.30	Max 0.20
8AL4	0.1995	0.3588	0.5346	0.0186	0.0088	0.399	0.129	0.024
A4	0.22016	0.5412	0.5564	0.0286	0.0247	0.423	0.061	0.016
8644	0.1863	0.3562	0.5738	0.0097	0.0173	0.266	0.178	0.025
8944	0.2136	0.4302	0.5906	0.0108	0.0186	0.334	0.126	0.016

MECHANICAL PROPERTIES

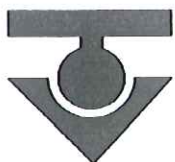
Heat No.	Yield (N/mm ²)	Tensile (N/mm ²)	Elongation (%)	Reduction of Area	Hardness H.B.
8AL4	274	638	29		159
A4	271	561	26		163
8644	261	526	23		159
8944	278	640	26		162
Dimensions to:			Bolting:		
Threads:			Seats:		

Kennzeichnung: H/15085, H/15086, H/15087

We Herewith certify that the material described herein has been made in accordance to the above specification and also with the requirement called for above order. All items has been inspected and tested to the satisfaction of the inspector.

Tank Lee
Authorized Signature

P04-0001-14

**TAIWAN VALVE COMPANY LTD.**

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TEST CERTIFICATE

Page:	8 of 8	Our Invoice #:	ECH-7214
Purchaser:	ECONOSTO NEDERLAND B.V.	P.I. #:	ECH-E812 (A)
Order #:	9267719	Date of Inspection:	FEB. 5, 1998
Date of Delivery:	FEB. 8, 1999		
Certificate	According to EN 10204/DIN 50049-3.1B		
Commodity:	ECON 3-PIECE BALL VALVE		
Specification:	GS-C25N	Material:	1.0619

Valve description	Best Test	Seat Test
1/2"RB/FB	OK	OK
3/4"FB	OK	OK
1"RB/FB	OK	OK
1 1/4"RB	OK	OK

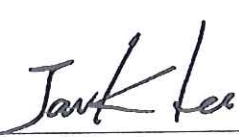
Test as per DIN 3230 part 3:

1.shell hydrostatic test (BA) : 102 bar water

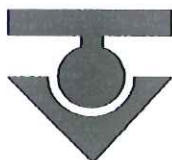
2.leak test (BF) : 6 bar water

3.seat test (BO) : 6 bar water

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Authorized Signature

P04-0001-38

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TEST CERTIFICATE

Page: 3 of 7
Purchaser: ECONOSTO NEDERLAND B.V.
Order #: 9255126
Date of Delivery: NOV. 21, 1998
Certificate: According to EN 10204/DIN 50049-3.1B
Commodity: ECON 3-PIECE BALL VALVE
Specification: GS-C25N
P.I. #: ECH-E335 (A)
Date of Inspection: NOV. 19, 1998
Material: 1.0619

Item No.	Heat No.	Description	Q y (PCS)	Pressure Test (Kg/cm ²)			Test Result
				Hydrostatic		Air	
				Shell	Seat	Seal	
1	70A4	FIG.7422A CAP 1"RB					
2	X 76A4	FIG.7422A CAP 1"RB					
3	77A4	FIG.7422A CAP 1"RB					
4	A4	FIG.7422A CAP 1"RB					
5	8AJ4	FIG.7422AB BODY 3/8"FB					

CHEMICAL COMPOSITION (%)

Heat No.	C	Si	Mn	P	S	Ni	Cr	Mo
	0.18 ~ 0.23	0.3 ~ 0.6	0.5 ~ 0.8	Max 0.03	Max 0.03	Max 0.5	Max 0.30	Max 0.20
70A4	0.2299	0.4566	0.6735	0.0267	0.0172	0.167	0.178	0.029
76A4	0.1995	0.3118	0.6885	0.0092	0.0197	0.032	0.182	0.012
77A4	0.2285	0.5838	0.5873	0.0212	0.0234	0.299	0.136	0.016
A4	0.2206	0.5412	0.5564	0.0286	0.0247	0.423	0.061	0.016
8AJ4	0.1974	0.3366	0.5498	0.0197	0.0286	0.083	0.102	0.002

MECHANICAL PROPERTIES

Heat No.	Yield (N/mm ²)	Tensile (N/mm ²)	Elongation (%)	Reduction of Area	Hardness H.B.
70A4	256	604	28		158
76A4	255	636	26		159
77A4	267	609	29		165
A4	271	561	26		163
8AJ4	272	598	24		165
Dimensions to:			Bolting:		
Threads:			Seats:		

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Jack Lee
Authorized Signature

P04-0001-14