

Company Profile

Our Business

Profile

Company Qualifications

Product Approvals

Patented Products

NBS makes a commitment to
“NOT TO STOP YOUR PRODUCTION”
with our control valves and services.



Wafer



Double Flange

Name

NBS CORPORATION

Established

May 15, 1969

Head office · Factory

234 Kuwaki, Oyama-cho, Sunto-gun,
Shizuoka-Pref., 410-1315, Japan
Tel. : 0550-76-1255
Fax. : 0550-76-3691

Engineering
Dept.

Tel. : 0550-76-3889
Fax. : 0550-76-1257
E-mail : kikaku@nbs-valve.co.jp

Internal Sales
Dept.

Tel. : 0550-76-1948
Fax. : 0550-76-3691
E-mail : nbs@ruby.ocn.ne.jp

Overseas Sales
Dept.

Tel. : 0550-76-1255
Fax. : 0550-76-3691

Q.A. Dept.

Tel. : 0550-76-1256
Fax. : 0550-76-2066

Osaka Sales office

9F-C', Shin-osaka yachiyo Bldg. 1-45, 4-chome, Miyahara,
Yodogawa-ku, Osaka-shi, Osaka 532-0003, Japan
Tel. : 06-6396-8660
Fax. : 06-6396-8661
E-mail : osaka@nbs-valve.co.jp

Affiliated company

NBS ENGINEERING CORPORATION
3F, ST Bldg. 21-2, 3-chome, Kandasakuma-cho,
Chiyoda-ku, Tokyo 101-0025, Japan
Tel. : 03-3861-7911
Fax. : 03-3861-7910
E-mail : nbseng@nifty.com

Profile

“NBS” stands for (Established in 1971)

- N** Nippon (*Japan*)
- B** **B**all / **B**utterfly (Now we have *new concept valves.*)
- S** **S**eisakusho (*Manufacturing works*)

Joint Venture - Nippon Jamesbury (1971~1977)

- NBS : 60% Jamesbury, USA : 40%
Jamesbury is a manufacturer of ball valves with top market share in petrochemical sector in USA and high performance butterfly valves.
- NBS manufactured ball valves and butterfly valves with Jamesbury brand name and sold them through a joint venture company.

- Joint Venture Agreement expired in 1977.

Start manufacturing with “NBS” brand name from 1980 till now

Created through Ball



“ **Better and less expensive**
Than Ball valves ”

In 1982, Development of Rotary Valve **UNIFLOW** for PSA

Developed as high speed, high rated cycle with automated switching valves, and Employed for Pressure Swing Adsorption System (for Oxygen Generator)

- High speed operation ; Less than one second
- Operation durability ; Proved 1 million continuous cycles operation
- Test valves ; JIS 10K - 150mm, 250mm



In 1991, Patent of 2-Stage Open/Close Cylinder

- For oil refining and oil depot, we developed 2-stage open/close cylindrical rotary control valve for use of lorry-cargoes dispatch, of which characteristics is to prevent water hammer far smaller (less than a half) than conventional ball-, globe valves without 5 consecutive years' maintenance.



In 1997, US-Patent talks with Jamesbury

- It is confirmed by Jamesbury that our products do not contravene the US-Patent of Jamesbury (on the seat of butterfly valve : No. 4,331,319)

In 1998, Appeal Announcement of our Rotary Valves of larger than 80mm (3") for precise control

Under the witness of Monsanto, USA, we tested our economical "UNIFLOW" of which size was larger than 80 mm (3 inch) and proved that our products had excellent controllability.

- The test results ; According to ISA Spec
 - Hysteresis $\leq 1\%$
 - Linearity $\leq 2\%$
 - Response Sensitivity $\leq 1\%$
- Test valves ; ANSI CL150 - 4", 12", 36"



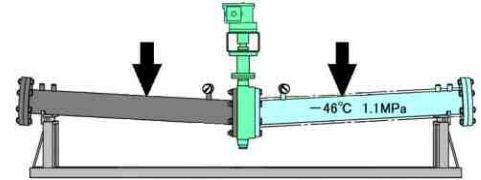
Profile

In 1999, Piping stress tests of **UNIFLOW** at low temperature for LPG Tankers

- Tests ; Proved that there was no external leakage, no seat leakage, but good operability under conditions; added -46°C temperature and critical piping stress.

- Test valves ; ANSI CL150 - 6"

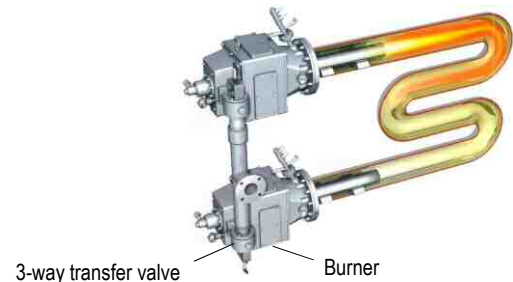
- Witnessed by ; Mitsubishi Heavy Industry, Nagasaki



Test Scheme

In 1999, As designated company of Tokyo Gas Engineering **TGE**

- Products
 - Regenerative radiant tube burner
 - 3-way transfer valve with burner



In 2000, Development of **UNIFLOW** with high temperature resistance and high rated cycle for regenerative burner of steel works

- Tested the 500,000-cycle operation in high temperature :
 - / The valve was heated up to 250°C.
 - / Then It was proved that there was no gallings, no abnormal sound occurred during and after the cycle test for minimum valve operating pressure, but excellent operability.

- Operation durability ; More than 1 million cycles / year
- Temperature performance ; Max. 550°C (actual figure)
- Test valves ; JIS 10K - 250mm

In 2004, Development of **UNIFLOW** for cooling bank of hot strip mill in steel works

- Conducted 1 million cycles test with actual liquid
(water with scales collected from steel mills)
- Proved 1 million continuous cycles
- Proved seat leak rate of 1.2 cc/min after 1 million cycles
- Test valves ; JIS 10K - 150mm



In 2004, Development of **UNIFLOW** with new long life seat for PSA

- Conducted 5 million cycles test
- Proved 5 million cycles with seat leakage 12cc/min
- Test valves ; JIS 10K - 150mm



In 2010, Development of **UNIFLOW** for LNG

- Conducted cycle test at actual temperature (below -164°C);
Maximum allowable leakage: 5cc/min/inch (normal flow),
10cc/min/inch (reverse flow)
 - Proved 5000 cycles within the allowable leakage (12").
 - Proved 3000 cycles within the allowable leakage (18").
- Test valves ; ANSI CL150 - 12", 18"

- Type Approval certificate by Lloyd's Register acquired on July 22, 2011
 - Certificate No. ; 11/10065
 - Applied Standards ; BS 6364: 1984



Company Qualifications

In 1974, Approval from MITI (Ministry of International Trade and Industry) as qualified high pressure gas equipment manufacturer



■ Approval No. ; MAB 344-N-7 (for valves)

(MITI : as qualified works)

In 1999, Quality System Standards ISO 9001 certified



■ Applied Standards ; ISO 9001 : 2000 / JIS Q 9001 : 2000

■ Register No. ; 99QR-226

■ Third Party Inspection Authority ; KHK (The High Pressure Gas safety Institute of Japan)

In 1994, Fire Safe Approval

■ Applied Standards ;



API 607

"Fire Safe for soft-seated quarter-turn valves"
API Standard 607, Third edition, Nov. 1985



BS 6755 part2

"Testing of valves. Specification for
fire type-testing requirements"
BS 6755 : Part 2 , 1987



※ "Fire Safe" is specified in the international standards that prove and certify that the valve (internal/external) sealing and operability are within the limited standard even after fire.

■ Certificate No. ; YKA420235

■ Third Party Inspection Authority ; Lloyd's Register

In 1997, TA-LUFT (Technical Guideline for Clean Air Preservation) Certificate

In accordance with fugitive emissions regulations
(Clean Air Preservation)

- Certificate No. ; E9797062
- Third Party Inspection Authority ; TÜV Rheinland



In 2012, Fire Safe Approval of UNIFLOW for Cryogenic Service

- Applied Standards ; ISO 10497: 2010 "Testing of Valves - Fire Type-testing Requirement"
- Certificate No. ; 11/10065E1
- Third Party Inspection Authority ; Lloyd's Register

Various Ship Classifications Available

Nippon Kaiji
Kyokai (NK)



Lloyd's Register
(LR)



Germanischer
Lloyd (GL)



Det Norske
Veritas (DNV)



Bureau
Veritas (BV)



American Bureau
of Shipping (ABS)



Korean Register
(KR)



Chinese Classification
Society (CCS)



Patented Products

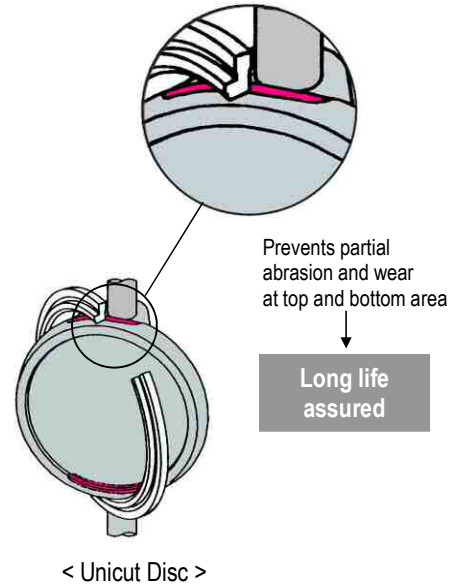
In 1990, Patented " UNICUT " Disc

■ Features

- Prevention of partial abrasion of Metal seat
- Seat life is 10 times longer than that of other high performance butterfly valves

■ Patent No.

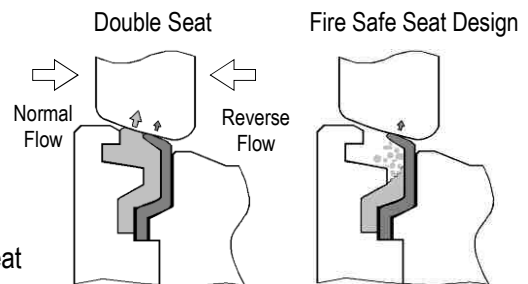
- Japan : 2787726
- USA : 5158265
- Europe : EP0459509
69105821.0 (Germany)



In 1990, Patented Double Seat

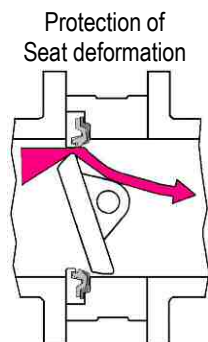
■ Features

- Sealing by both Soft seat and Metal seat
- Bi-directionally Zero (0) Leakage
- Metal seat protects Soft seat and perfectly shut off under conditions of high temperature, high pressure, high differential pressure and high velocity without seat deformation
- Metal seat covers sealing after Soft seat is destroyed in case of fire



■ Patent No.

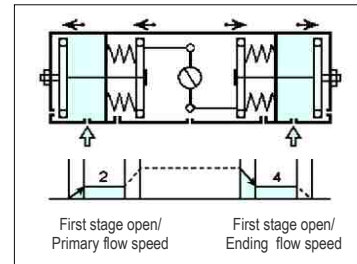
- Japan : 3021063



In 1991, Patented 2-Stage Open/Close Cylinder

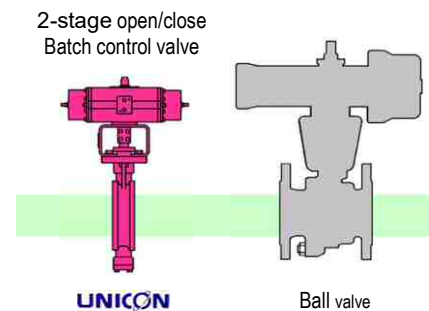
■ Features

- Compact and Lightweight
- Hysteresis reduced by Mechanical type 2-stage Open/Close Cylinder
- Emergency shut off (by Spring return cylinder actuator)



■ Patent No.

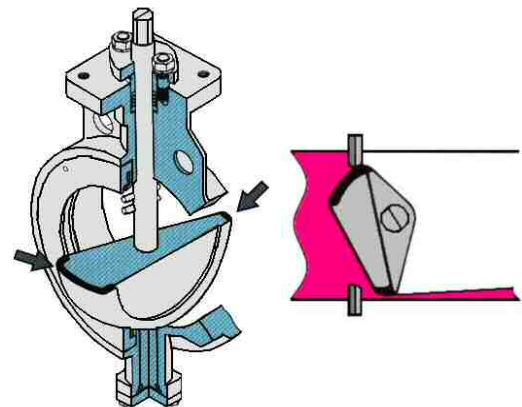
- Japan : 3132585



In 1995, Patented Rotary Valve UNICON

■ Features

- Controllable for small flow volume that is not possible by a butterfly valve
- Controllable for large flow volume that is not possible by a globe valve
- More compact and Lightweight than a globe valve



■ Patent No.

- Japan : 3108353
- USA : 6131882
- Europe : EP0780608
69622977.3 (Germany)

