

Cert. No.: 1999805-02

Project No.: 1999805

Date Issued: 2 October 2008

Office: Busan, Korea

INSPECTION CERTIFICATE

THIS IS TO CERTIFY THAT the undersigned representative to ABS Consulting, Inc., Korea did, at the request of Kukil Inntot Co., Korea, attend their premises located in Ulsan, Korea on the 13th day of March 2001 in order to witness leak testing on the articles hereunder mentioned with the following results:

Witness on VOC (Volatile Organic Compound) Packing Testing

Manufacturer:

Kukil Inntot Co., Ltd.

Customer: Type of packing: Unknown (newly developed)

VOC-CP21 for low temp'

*Particulars of VOC Packing

No. Part name

Packing type (CP21)

1. Ring packing (upper/lower) Graphite+Teflon

2. Mold packing (middle) Graphite+Teflon **SUS316**

3. Metal cap 4.

Teflon fiber packing

Grand packing

*Inspection and Test

The following tests were carried out according to the Manufacturer's VOC packing test procedure (K/I-GWS-Q-30, Rev. 0) for evaluation of physical condition of VOC packing:

1. Leak test in way of VOC packing to valve stem at ultra low temperature of -150°C (no cycle test applied)

*Test Conditions and Results

Valve sampled: 150# 6"

VOC packing sampled: 48T-46x30 (height – OD x ID)

Testing medium: Helium gas

Gas pressure: 10kgf/cm²

Holding time: 20 min.

Tightening torque of grand bolting: 400kgf.m

Leak measured: 40 PPM at -150±10°C with no cycles

Cycle test: 1,000 times of open and close with valve stem upon installation of VOC packing on the valve stem and upon tightening grand bolting with specified torque.

Inspection made y

J. P. Oh Technical Repr

ABS Consulting, Inc., Korea

Enclosed: 1. Manufacturer's mill certificates endorsed by the surveyor upon review 2. Manufacture's test reports endorsed by the surveyor upon witness

This certificate has been re-issued based on the ABS Consulting's cert' no. 1321303-01 dated 20 May 2004 issued at Busan office

This certificate or report is granted or issued subject to the condition that it is understood and agreed that nothing herein shall be deemed to relieve any designer, manufacturer, seller, supplier, repairer or operator of any warranty, express or implied and ABSGI liability shall be limited to the acts and omissions of its employees, agents and subcontractors. Under no circumstance whatsoever shall be ABSGI liable for any injury or damage to any person or property occurring by reason of negligent operation, misuse of or any defect in materials, machinery, equipment or other items other than defects in items actually inspected by ABSGI and ascertainable by normally accepted testing standards, or defects reflected in documents reviewed by ABSGI and which are covered by this certificate or report.