



DEPARTMENT OF TRADE AND COMMERCE  
STANDARDS BRANCH

G-28

OTTAWA August 4th 1966

NOTICE OF APPROVAL

FOR

CAMCO "ORIFICE VALVE" and "ORIFICE DOOR"

APPARATUS

1. Orifice Valves

- (a) Flanged Type - Standard or Ring Joint Flanges.
- (b) Flangeweld Type - Standard or Ring Joint Flanges.
- (c) Weldneck Type \*\*

<u>Nominal Size</u>	<u>Pressure Rating</u>
2,3,4 and 6 inch	150 lb. ASA - 275 psi C.W.P.*
2,3,4 and 6 inch	300 lb. ASA - 720 psi C.W.P.*
2,3,4 and 6 inch	600 lb. ASA -1440 psi C.W.P.
2 and 3 inch	900 lb. ASA -2160 psi C.W.P.
2 inch	1500 lb. ASA -3600 psi C.W.P.

- \* Not available with Ring Joint Flanges.
- \*\* Available only in 2,3, and 4 inch for 600 lb. ASA and 2 and 3 inch for 900 lb. ASA ratings.

2. Orifice Doors

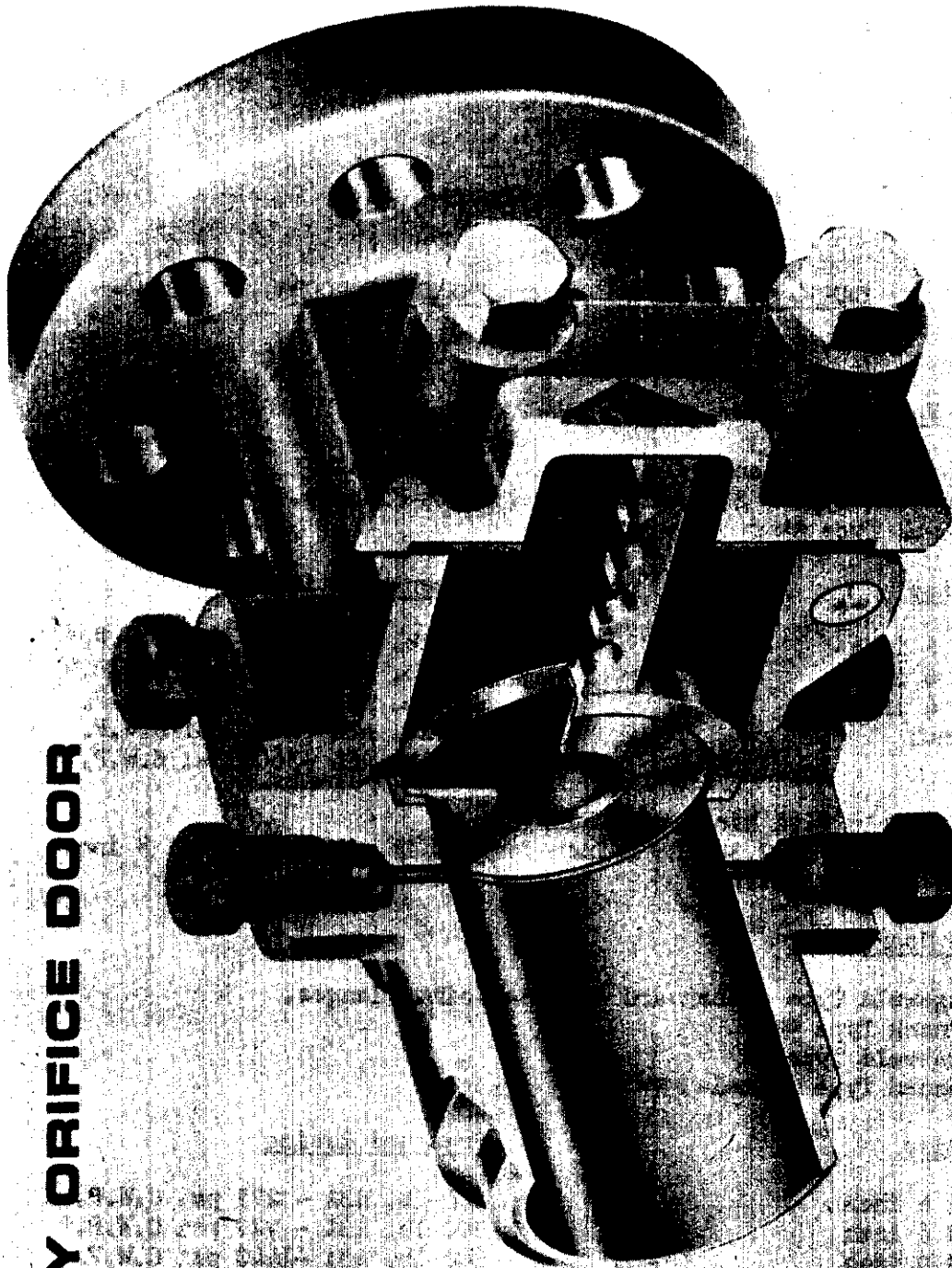
- (a) Flangeweld Type - Standard or Ring Joint Flanges.
- (b) Weldneck Type \*\*
- (c) Socketweld Type \*\*
- (d) Threaded Type (Female)\*\*\*

<u>Nominal Size</u>	<u>Pressure Rating</u>
2,3,4 and 6 inch	150 lb. ASA - 275 psi C.W.P.*
2,3,4 and 6 inch	300 lb. ASA - 720 psi C.W.P.*
2,3,4 and 6 inch	600 lb. ASA -1440 psi C.W.P.
2 and 3 inch	900 lb. ASA -2160 psi C.W.P.
2 inch	1500 lb. ASA -3600 psi C.W.P.

- \* Not available with Ring Joint Flanges.
- \*\* Available only with 600 lb. ASA rating.
- \*\*\* Available only in 2,3 and 4 inch 600 lb. ASA rating.

Meter Pressure Taps - - - - - 1/2" N.P.T. (Female)

**CUTAWAY ORIFICE DOOR**



DESCRIPTION

The Camco "Orifice Valve" is designed to combine an orifice fitting with a valve so that orifice plates may be easily changed while the line is under pressure. The valve is constructed around the ball principle, and the ball part of the valve has a suitable slot for an orifice plate retainer as well as three pressure tap holes. Two of these, located one inch from the orifice plate, and on each side of it, are linked with the upstream and downstream orifice pressure connections. The third hole, at the upstream side connects to the lower end of the valve chamber which is covered with a metal door. This chamber also connects via a shut-off valve to a pressure hole at the upstream side of the orifice fitting. The shut-off valve permits equalizing the pressure in the ball chamber with the line pressure prior to opening the "Orifice Valve". A second valve, connecting to the same chamber, permits bleeding the pressure to the atmosphere before opening the door and removing the orifice plate retainer. Suitable method of locking the "Orifice Valve" in the 'open' position is provided by a spring-loaded latch assembly which must be depressed before the valve can be closed.

The main ball is held in place by spring-loaded seal assemblies fitted into the main valve body. At their contact ends with the ball the assemblies carry circular, self-lubricating moly-filled teflon seals. Other seals within the valve assembly are provided by suitable O-rings.

The manufacturer offers two types of the "Orifice Valves" referred to as Standard and By-Pass types. The By-Pass type is similar to the Standard one described above, but it includes a by-pass duct built into the lower half of the ball which permits the flow to continue during the change of the orifice plate. Both types are approved.

Suitable reduction gearing in four and six inch "Orifice Valves" provides for easier rotation of the ball.

The "Orifice Door" is designed for a quick change of orifice plates in an installation where the line can be relieved of pressure. It is constructed to accept the same type of the orifice plate retainer as the "Orifice Valve".

Specially designed, grooved rim orifice plates originally used with Camco "Orifice Valves" and "Doors" are now replaced by standard orifice plates of universal design. The plate is held in the orifice plate retainer by a plate seal assembly carrying Buna N seal bonded to the Monel ring.

Camco Orifice Valves and Orifice Doors are designed to meet the requirements of the A.G.A. Report #3.

This approval consolidates and extends coverage to Camco Orifice Valves and Doors previously approved under Circular S-GA.305.

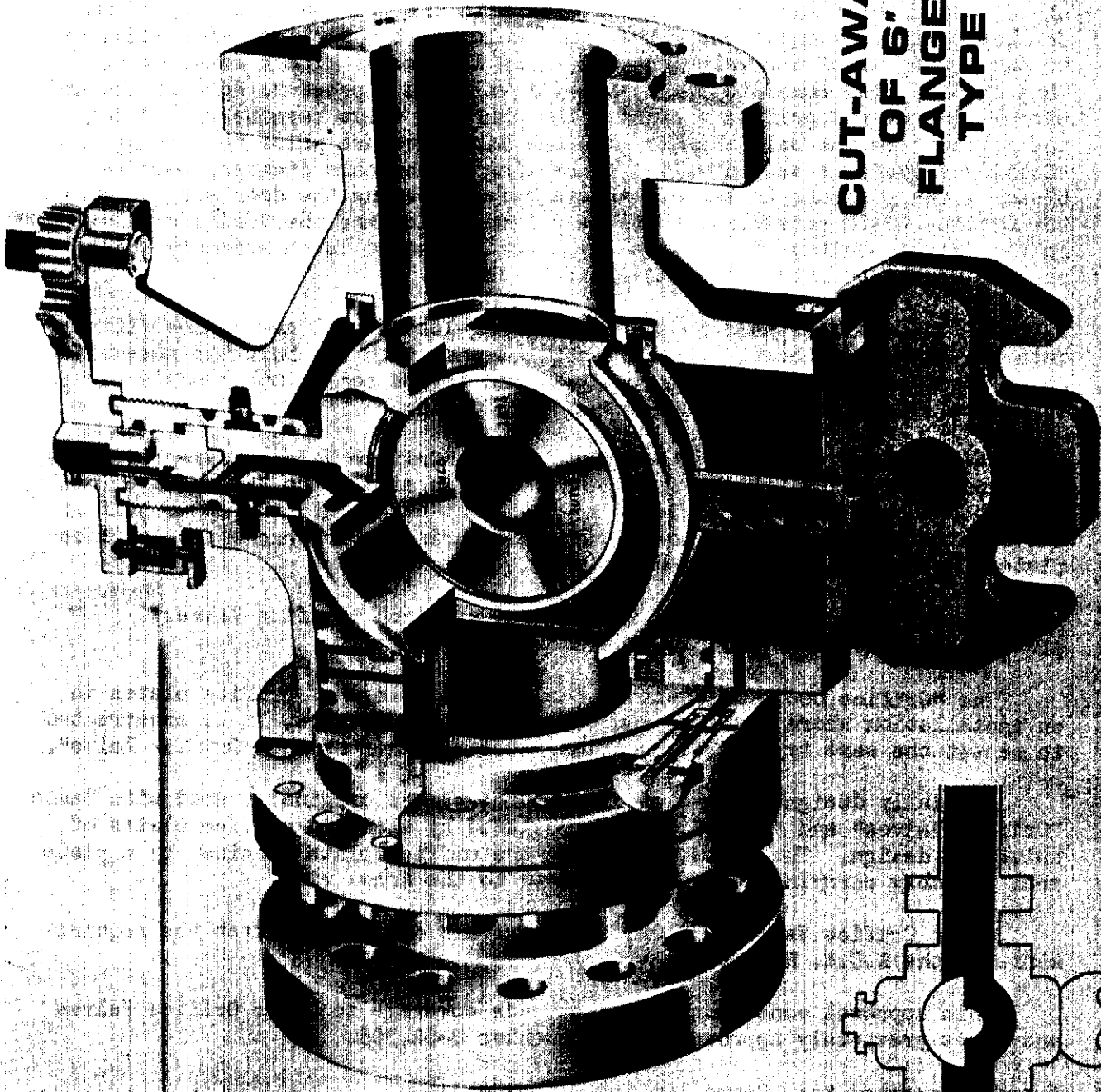
Approval granted to: Camco Limited - Canada  
Calgary, Alberta.

*W. J. S. Fraser*

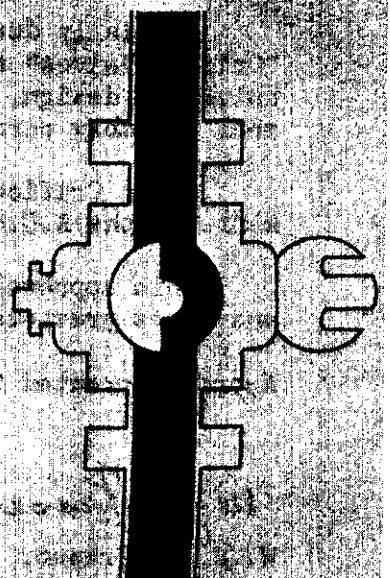
W. J. S. Fraser,  
Chief, Standards Laboratory,  
Standards Branch.

*K. Cryer*

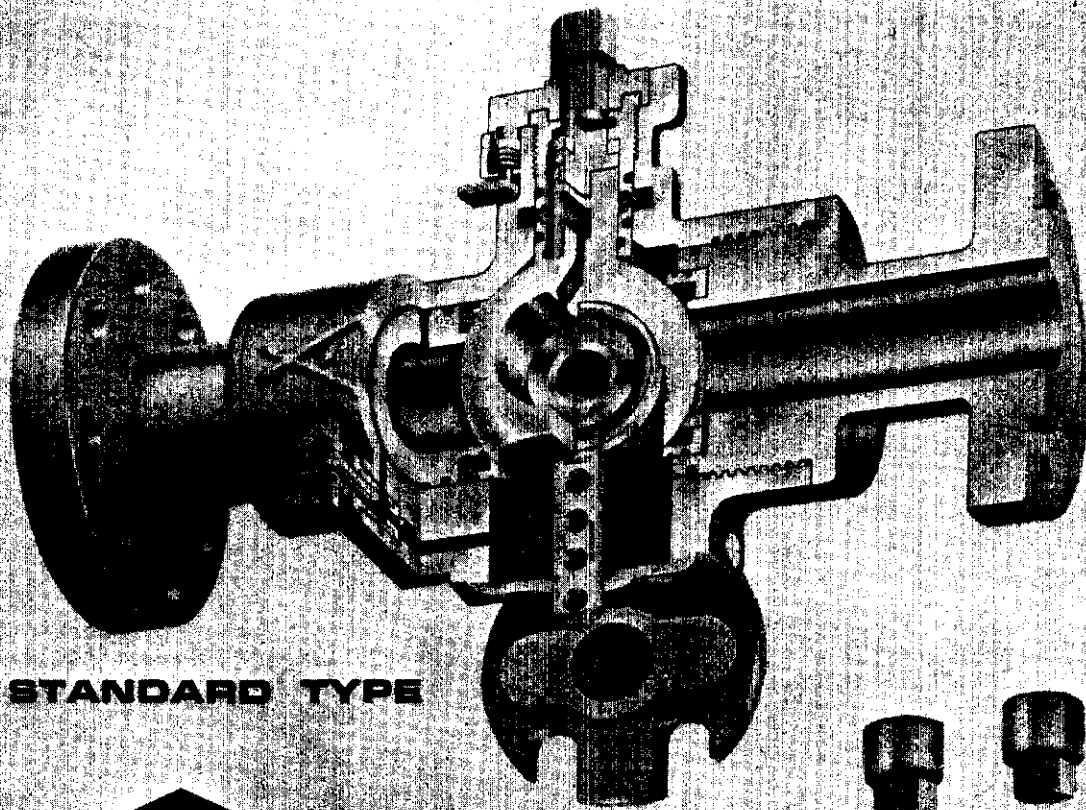
K. Cryer,  
Chief, Electricity & Gas Division,  
Standards Branch.



**CUT-AWAY  
OF 6"  
FLANGED  
TYPE**

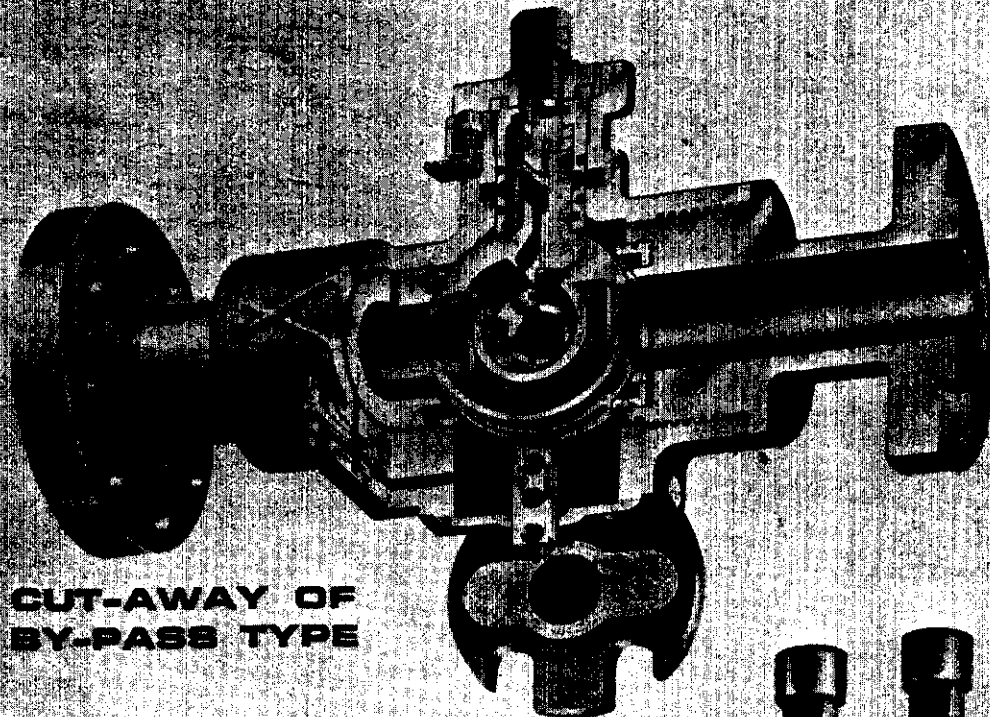


CAMCO "ORIFICE VALVE" AND "ORIFICE DOOR"



**STANDARD TYPE**

CAMCO



**CUT-AWAY OF  
BY-PASS TYPE**



Consommation  
et Corporations Canada

Consumer and  
Corporate Affairs Canada

Direction de la  
Métrologie légale

Legal Metrology  
Branch

Holland Avenue  
Ottawa, Ontario  
K1A 0C9

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Telephone: (613) 990-8614

Your file    Votre référence

Our file    Notre référence

O6635-C9-22

1985-01-22

AML-G-12

Camco Limited Canada  
9605 - 62 Avenue  
Box 4416  
Edmonton, Alberta  
T6E 0E1

Attention: Mr. A.L. Dudiak  
Canadian Works Director

Re: Application for Approval of Modified "Orifice Valve" sizes 2, 3 and 4 inch

Dear Mr. Dudiak:

This letter is in response to your letter dated December 14, 1984, regarding a modification to the type/models of meters described above, which are currently approved in Notice of Approval G-28. I am advised that the Gas Laboratory has evaluated the modification, of incorporating an internal ball stop, consisting of (i) Two  $\frac{1}{2}$  inch - 20 NF set screws, with locking pellets;

- (ii) Two  $\frac{1}{2}$  inch - 20 UNF end plugs, drilled for sealing purposes;
- (iii) Additional locating pin on the by-pass ball; and
- (iv) Indicator ball stop plate.

The conclusion is that it may be regarded as insignificant, in relation to the approval provisions of the Gas Inspection Act.

Accordingly, pursuant to the authority delegated to me by the Director under section 7 of the Gas Inspection Regulations;

1. your letter is hereby acknowledged as satisfying the notification requirements of subsection 7(2) of the regulations; and
2. the proposed alteration is hereby accepted, in accordance with subsection 7(3) of the Regulations, as being an immaterial one and hence included within the approval.

All recipients of Notices of Approval under the Gas Inspection Act are being informed of this decision by copy of this letter. For our records you are requested to advise us of the starting serial numbers when the change is initiated in production.

Yours truly,

W.R. Virtue  
Chief

Legal Metrology Laboratories

WRV:kl

cc: Mailing List (Gas Approvals)

Canada