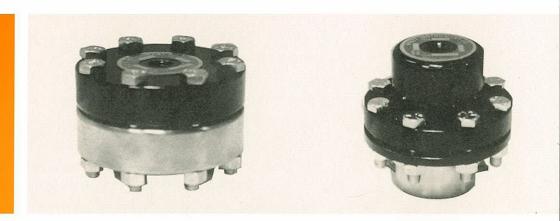
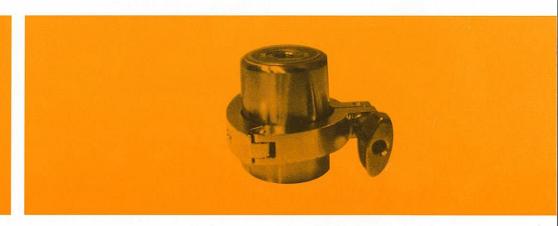


P. O. BOX 1640 130 GRANGER DRIVE BRIDGE CITY, TEXAS 77611-1640 PHONE (409) 735-5383 FAX (409) 735-4989

DIAPHRAGM SEALS



FOOD & BEVERAGE SEALS



CALL YOUR NEAREST DISTRIBUTOR FOR PRICING AND DELIVERY



# DIAPHRAGM SEALS

Hyett Diaphragm Seals are engineered for reliable use with bourdon tube type pressure gauges and with process transmitters or any other application where the separation of the medium and the control mechanism is necessary.

Hyett Diaphragm Seals are offered in a wide range of materials to withstand various corrosive conditions. The entire system above the diaphragm is solidly filled with a suitable liquid. When the line pressure is applied, the diaphragm displacement builds up an equal and balanced pressure on the instrument side of the diaphragm, and the gauge then measures line pressure. When properly filled, attached and calibrated it allows the attached gauge to function with its normal accuracy.

The use of a Hyett Diaphragm Seal will substantially lengthen the life of a gauge or instrument.

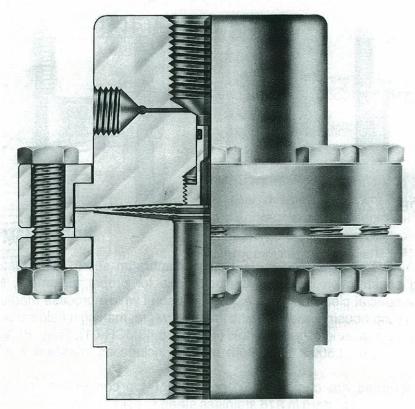
All Hyett Diaphragm Seals offer superior construction features for total dependability. These features include use of only top quality steel and other materials, precision machining of threaded connections.

Several designs are offered on the following pages for your selection.

# HYETT

# MODEL 25 CAPSULE DIAPHRAGM SEALS

features field-replacement diaphragm, top housing assemblies and operator protection



Hyett Model 25 Diaphragm Seals feature a unique, modular approach to facilitate maintenance. When the eight bolts are removed, the top housing and screw-in diaphragm come away as a single unit, along with the gauge which is connected. This allows prefilling and pre-calibrating of a stock of top-housing diaphragm/gauge units to meet the need for a replacement as soon as a problem occurs. All without ever needing to disconnect the lower housing from the line.

Model 25 also features an overlapping collar design at the joint of the upper and lower housings, thus preventing a blowout which could spray or burn an operator.

To simplify fluid filling, all Model 25 diaphragm seals include as standard a fill/bleed port in the top housing, except non-metallic tops.

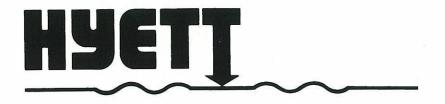
One model, the 25-01, also includes a flushing connection in the lower housing, in either 1/4" or 1/6" N.P.T. female connection.

Model 25 diaphragm seals are available in threaded models for pressures to 2,500 psi; in flange-mounted models for pressures to 150 or 300/600#\* (larger line sizes and flange ratings on request), in a saddle-mounted model for pressures to 2,500 psi; and in in-line welded or threaded models for pressures to 2,500 psi, or in-line flanged for either 150 or 300#\*.

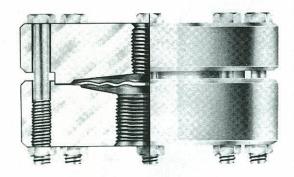
Other standard features are: choice of 1/4" or 1/2" N.P.T. top (instrument) connection; top housing is standard in carbon steel; diaphragm is standard in 316L stainless steel.

<sup>\*</sup> Designates ASA flange classification ratings.

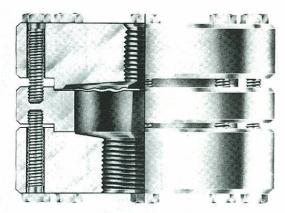
<sup>\*\*</sup> Teflon is a registered trademark of Du Pont.



# MODEL 42M & 43MCR REMOVABLE DIAPHRAGM SEALS



**MODEL 42M & 42MW** 



**MODEL 43MCR** 

MODEL 42M and 43MCR are clamped metal design diaphragm seals. They feature an interlocking male-female housing construction inside of the bolt circle for proper alignment. Model 43MCR has an added feature of a special clean out ring, especially useful where process medium build-up occurs. The ring is bolted to the top housing and contains the diaphragm, making it field serviceable for cleaning. Flushing connections are available in both models (42M-01 & 43MCR-01). They are available in threaded connections for pressures to 2,500# PSI. Both models include as standard a fill/bleed port screw in the top housing.

Other standard features are choice of 1/4" or 1/2" NPT top connection; top housing is standard in carbon steel; diaphragm is standard in 316 stainless steel.

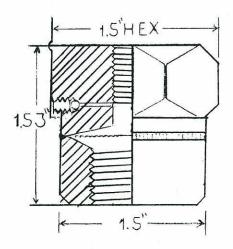
# MODEL 42MW & 25FW WELDED DIAPHRAGM SEALS

Welded diaphragm seals are designed to give a continuous filled system. They allow removal of upper housing with instrument from the lower housing without losing fill. These seals are available in threaded models (42MW) for pressure to 2,500# PSI, and flange attached (25FW) for pressures 150# or 300/600#. Higher flange ratings can be furnished upon request. Model 42MW has the same construction and standard features as Model 42M. Model 25FW has the same construction and standard features as Model 25F, except that the diaphragm cannot be replaced in the field. All welded seals include as standard a fill/bleed port in the top housing.



### HYETT ALL WELDED SEALS

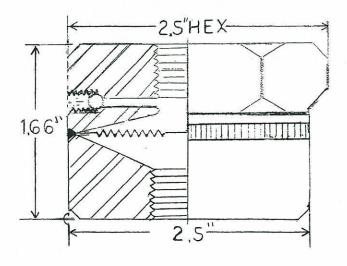
# MODEL 15AW



The 15AW mini-seal is designed for use on up to 3 1/2" bourdon tube gauges with a usual minimum range of 0-100 PSI. The maximum operating pressure is 2000 PSI at 100 degrees F.

These seals are standard in 316 stainless steel. Hastelloy C lower housings and diaphragms are available with a 316ss upper. Instrument connection is 1/4" NPTF and process connections are 1/4" NPTF or 1/2" NPTF.

### MODEL 25AW

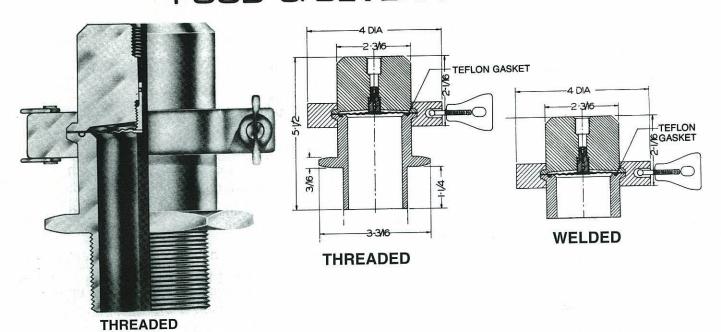


The 25AW seal is designed for use on up to 4 1/2" bourdon tube gauges with pressure ranges from vacuum to a maximum operating pressure of 1000 PSI at 100 degrees F.

These seals come standard in 316 stainless steel. Hastelloy C lower housings and diaphragms are available with a 316ss upper. A 1/4" flushing connection is available on this seal. Instrument connections are available in 1/4" and 1/2" NPTF. Process connections are available in 1/4", 1/2", 3/4", and 1" NPTF.

HYETT

# FOOD & BEVERAGE SEALS



#### MODEL 1-MSS, 1-FSS & 1-WSS FOOD AND BEVERAGE SEALS

HYETT FOOD AND BEVERAGE SEALS are made with all stainless steel parts; upper housing, lower housing, diaphragm and 2" quick-disconnect clamp.

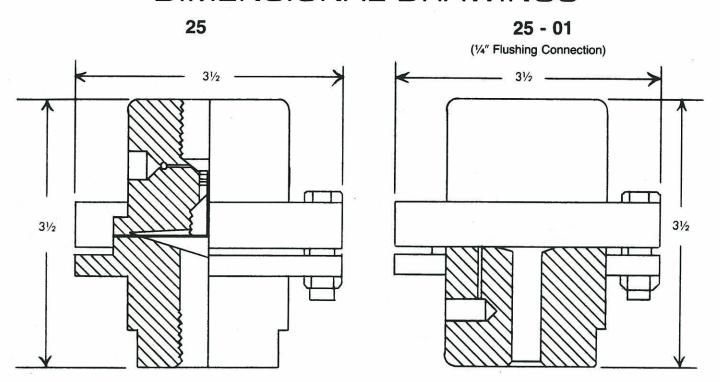
The quick-disconnect clamp allows easy and thorough flushing of the process system, a critically important factor in food and beverage manufacturing. The top housing features a screw-in diaphragm so the diaphragm/gauge liquid fill does not escape when the clamp is disconnected. This feature also simplifies the replacement of a prefilled upper housing/gauge assembly, should a problem occur.

The Hyett Food and Beverage Seals are available in male and female threaded bottom in  $1^1\!l_2^{\prime\prime}$  and  $2^{\prime\prime}$  N.P.T. process connection sizes, and in a  $2^{\prime\prime}$  welded bottom design. All are available with either  $1^1\!l_2^{\prime\prime}$  or  $1^1\!l_2^{\prime\prime}$  top (instrument) connection. All are rated at 450 psi at 70°F and 250 psi at 250°F and include as standard a fill/bleed port in top housing.

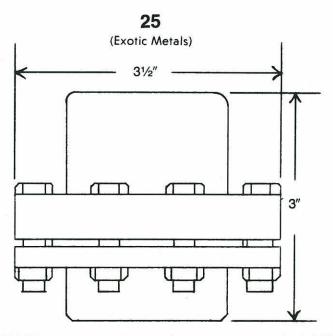
For very high-pressure applications, special clamps are available to increase pressure rating to 1,000 psi.

A Teflon gasket between the diaphragm and lower housing assures a tight seal.

# **DIMENSIONAL DRAWINGS**



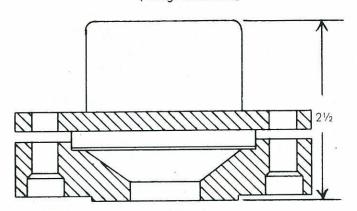
MODEL 25 and MODEL 25-01 are continuous duty type seals in threaded models and are rated to 2,500#psi.



MODEL 25, in exotic metals, lower housing is 1 1/4" instead of the standard 1 3/4" except when flushing connection is required. (Hastelloy, Monel, Titanium, etc.)

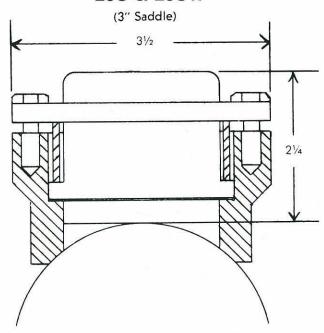
#### 25F & 25FW - 1" 150#

(Flange Mounted)



MODEL 25F is an ASA flange mounted model for pressure of 150#, 300# and 600#, and is available in various flange sizes. Holding ring on models up to 1 1/2" are as above, on larger flanges they are as shown below.

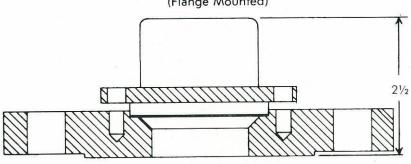
#### 25S & 25SW



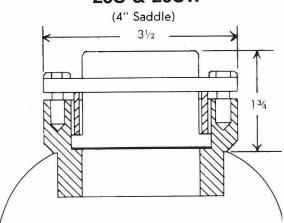
MODEL 25S (saddle mount) is designed to be welded onto the user pipe and is available in the 3" pipe size shown above or for 4" and larger pipe sizes as shown below. The saddle is rated to 2,500#psi.

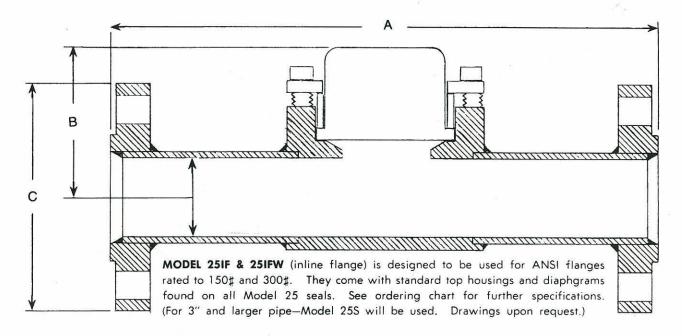
#### 25F & 25FW - 2" 150#, 300/600#

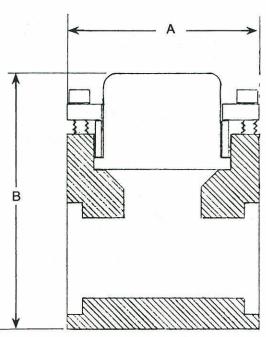
(Flange Mounted)



#### 25S & 25SW







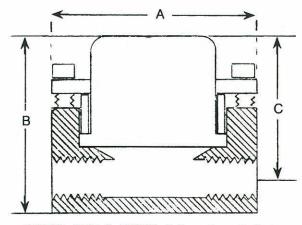
**MODEL 25IW & 25IWW**, (inline weld) is available in 1", 1½", and 2" lower housings, with socket weld connections.

#### 25IW & 25IWW (Inline Weld)

NOMINAL PIPE SIZE	Α	В
3/4"	31/2"	31/8"
1"	31/2"	31/4"
11/2"	31/2"	41/4"
2"	31/2"	41/2"

25IF & 25IFW (Inline Flange) 1" - 11/2" - 2"

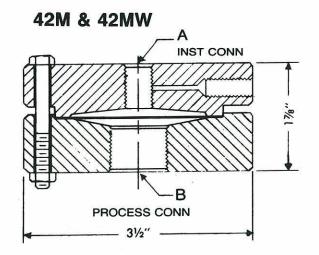
FLANGES		٨	0	-
SIZE	RATING	A	В	C
1"	150#	7	21/2"	4
Ţ	300#	8	21/2"	5
11/2"	150#	8	27/8"	5
1 72	300#	9	27/8"	6
2"	150#	9	31/8"	6
2	300#	10	31/8"	61/2



**MODEL 25IT & 25ITW** (inline threaded) is available in ¼", and ½" lower connections, and is a continuous duty flow-through type seal, for pressures to 2,500#psi service.

25IT & 25ITW (Inline Threaded) 1/4" - 1/2" NPT

PROCESS CONNECTION	Α	В	С
1/4" NPT	31/2	21/2"	21/8"
1/2" NPT		27/8"	21/4"

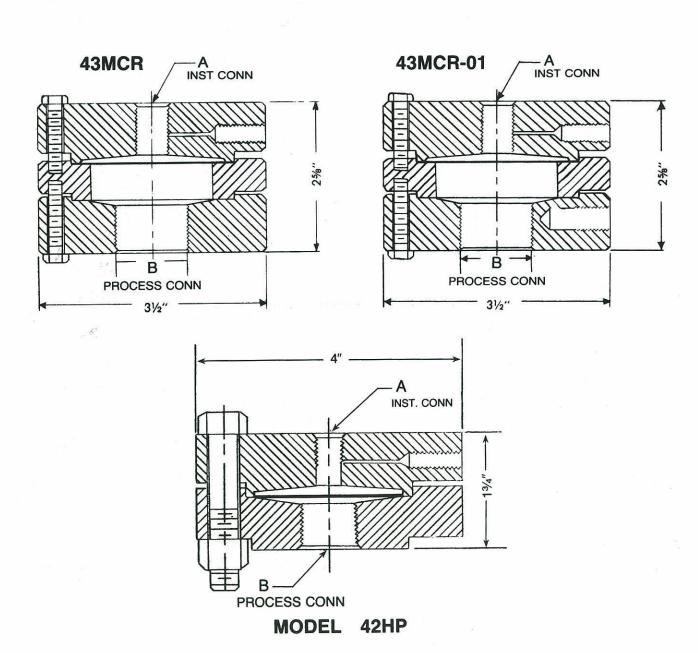


42M-01 & 42MW-01

A
INST CONN

PROCESS CONN

3½"



# TO ORDER A HYETT SEAL SPECIFY:

- Model number.
- 2. Material for the diaphragm and the lower housing.
- 3. Instrument connection, 1/4" or 1/2" N.P.T.
- 4. For threaded seals, specify the process connection size. For the flange seals, specify pipe size and flange pressure class.
- 5. Select desired filling.
- 6. If capillary is to be used, specify type, and length.

#### PRESSURE RATINGS:

Maximum allowable pressures are stated with each model description and must not be exceeded. Teflon, Polypropylene, PVC and other plastics are not designed to withstand pressures as do their metal equivalents and should be used only on low pressure service. All allowable pressures decrease when temperature increases.

#### SPECIAL DIAPHRAGMS

The standard diaphragm is 316L stainless steel, to order a diaphragm made of another material you can select one of the materials listed below.

304 Stainless Steel

Tantalum

Carpenter 20

\*\*Teflon

Viton

Monel

Hastelloy B & C

Nickel

**Titanium** 

#### LOWER HOUSINGS:

All models are available in many corrosion resistant materials and optional features as listed below, selection of material and compatibility of material and process fluid is responsibility of the user.

Steel

Monel

**Titanium** 

304 Stainless Steel

Nickel

Polypropylene

316 Stainless Steel

**PVC** Teflon

Hastellov B or C

Carpenter 20

#### LIQUID FILLINGS

The selection of the fill depends on the temperature expected in any given application. The standard filling, Instrument Oil, is rated 0-250 degrees F. Other types of fillings available are listed below with their temperature ratings.

Glycerine 0-400 F Silicone HT-110 - 40 to 600 degrees F Fluorolube 50 to 500 degrees F Halocarbon upon request

# **OPTIONAL FEATURES:**

316 SS top housing with SS rings, nuts and bolts. Pipe plugs for flushing connections. Flange faces - raised face, flat face or ring joint. 5,000# PSI - type 42HP only.

#### CAPILLARY LINES

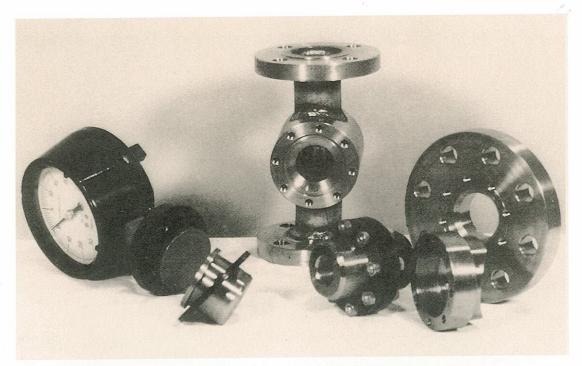
If your application requires a stainless steel capillary line, specify one of the following and the desired length when ordering.

Stainless Steel Armored 1/4" or 1/2" N.P.T. conn. Stainless Steel Armored PVC coated 1/4" or 1/2" N.P.T. conn.

#### **GUARANTEE**

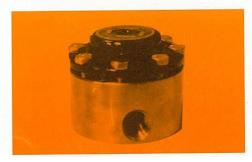
Hyett Manufacturing and Instrument Company, Inc., guarantees its diaphragm seals to be free from defects in material and workmanship at the time of shipment.

We assume no other responsibility and make no other guarantee.

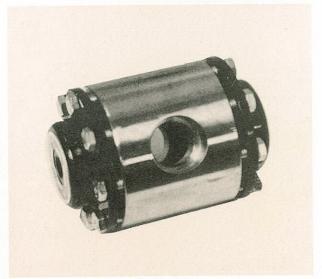












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