

If your problem is

VIBRATION

NOISE

or PIPING ALIGNMENT...

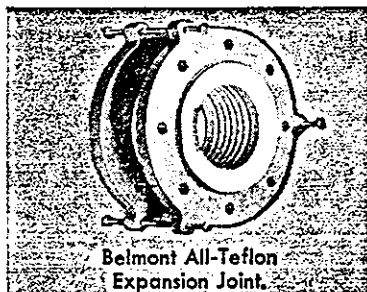
Bring BELMONT into the Picture



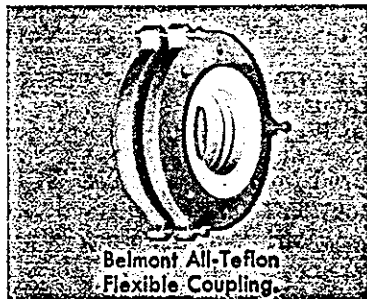
**EXPANSION JOINTS
and
FLEXIBLE COUPLINGS**

fit every Heating and Air Conditioning Need with Constructions of Rubber, Neoprene, Teflon-Lined Rubber, or all Teflon*.

*Du Pont Trademark



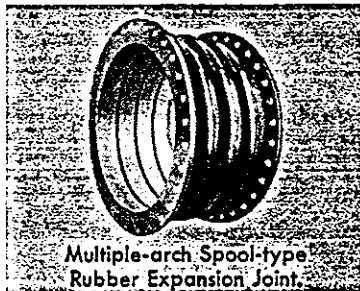
Belmont All-Teflon Expansion Joint



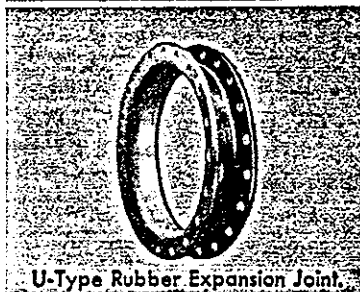
Belmont All-Teflon Flexible Coupling



Spool-type Belmont Rubber Expansion Joint



Multiple-arch Spool-type Rubber Expansion Joint



U-Type Rubber Expansion Joint

**AVAILABLE THROUGH
LOCAL AUTHORIZED
DISTRIBUTORS**

*Write for name of
distributor nearest you.*

Better Buy

BELMONT

THE BELMONT PACKING & RUBBER COMPANY

Butler & Sepviva Streets - Philadelphia 37, Pa.

Blumberg No. 6113

**PLAINTIFF'S
EXHIBIT**

G-197

Technical briefs

Begins on page 92

probably be relegated to peaking duty. Be sure they're designed now for fast and repeated startup in later years. What does this mean to boiler and auxiliary design? Some suggestions indicate areas of investigation. ASME 61-WA-328

Hydraulic fluids

Air bubbles in oil—their effect on viscosity and compressibility, A T J Hayward, National Engineering Laboratory, Glasgow

In this study, bubbly oil is defined as oil containing bubbles that are separated by relatively thick films, as opposed to foam. Viscosity tests described show that small bubbles (0.010 to 0.020-in. dia) have a straight-line effect on viscosity up to a bubble content of 25%.

Compression tests show n values slightly under unity—less than isothermal. This is due to loss of air to the solution, giving an apparent deviation from the true law of compression. Future work will increase test accuracy. NCIH

Dynamic fluid properties, R L Leslie, Vickers, Inc

New testing and instrumentation techniques have made possible a rigorous re-examination of many hydraulic fluids. Compressibility is usually expressed in a reciprocal form—bulk modulus. But there are several accepted bulk moduli for you to keep straight.

Pressure-viscosity relationships are covered. Effects of shear rate on viscosity have been complicated by popular addition of polymeric thickening agents. And the non-Newtonian characteristics of water-in-oil emulsion fire-resistant fluids have further focused interest on the effect of shear rate. Temporary increase and permanent loss of viscosity are explained.

Viscoelastic properties of hydraulic fluids are attracting attention. We may no longer safely assume that a fluid will start to flow as soon as a force is applied. NCIH

Steam and gas turbines

Steam-turbine governing-stage impulse-blade vibration invest-

If your problem is

VIBRATION

NOISE

or PIPING ALIGNMENT...

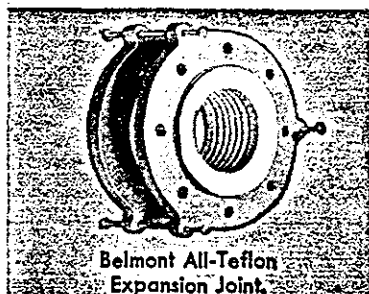
Bring BELMONT into the Picture



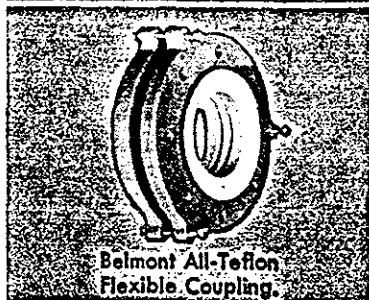
**EXPANSION JOINTS
and
FLEXIBLE COUPLINGS**

fit every Heating and Air Conditioning Need with Constructions of Rubber, Neoprene, Teflon-Lined Rubber, or all Teflon*.

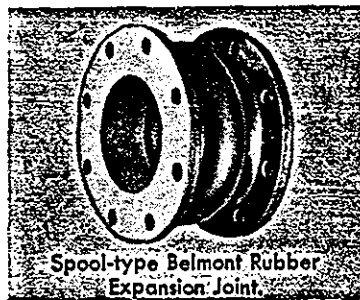
*Du Pont Trademark



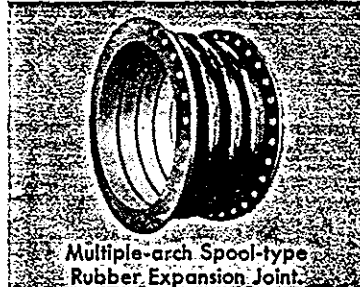
Belmont All-Teflon Expansion Joint



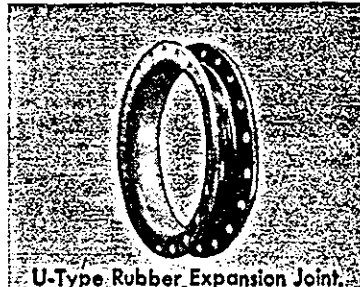
Belmont All-Teflon Flexible Coupling



Spool-type Belmont Rubber Expansion Joint



Multiple-arch Spool-type Rubber Expansion Joint



U-Type Rubber Expansion Joint

**AVAILABLE THROUGH
LOCAL AUTHORIZED
DISTRIBUTORS**

*Write for name of
distributor nearest you.*

Better Buy

BELMONT

THE BELMONT PACKING & RUBBER COMPANY

Butler & Sepulva Streets • Philadelphia 37, Pa.

For more facts circle 280 on Reader Service card, p 83

Marmaduke

Begins on page 118

and applied two resounding kisses on Marmy's freshly shaven, tough leathery cheeks.

"Belay the soft stuff, you bewitching chickadees!", he roared good-naturedly, as he handed them the package. "Where's your momma?"

"Voila! voila!" Madame Rose was all smiles as she emerged from the kitchen where she was planning her day's menus. "Ah, Monsieur Marmaduc, we haven't seen you for so long. We are missing you . . . oh no no . . . again a package . . . no you should not, but sit down and have café-cognac, while I fix your breakfast," she effervesced.

"Yes," chimed in Simone, "but first we must show him our new farm."

"Our brand-new chicken farm," Claudine explained as they led Marmy, one pulling at each arm, to the back yard, where hundreds of white Leghorns were enjoying their morning meal in the shadow of the small diesel plant.

"We started our new business with the money you sent us for a New Year's present, M'sieu Marmaduc, and it's marching very well," blurted Simone.

"That's more than Louis' diesel plant is doing, I'll bet," Marmy said almost to himself as his keen eyes and ears quickly took in several telltale trouble signs about the plant. "Yes," he rumbled to the girls, "I hope this chicken business pays off. But don't let it keep you from school," he warned. "Takes a lot of studying to make you interesting enough for a smart young millionaire to marry."

"Oh, yes, we know," Simone giggled, "but we are studying."

"Yes, we want to become smart like you, M'sieu Marmaduc," Claudine added, smiling coquettishly. Marmy glanced at her with approval. Yes, this one especially has enough feminine charm to make a king give up his throne, he mused, even if she couldn't read or write.

"Well, let's barge back to the galley," he declared, "and see how your momma is coming with the chow."

Madame Rose was indeed doing very well with the vittles. She was setting a breakfast fit for a king—

Heavy fluids mete: The main: slurr: heads: able subst: struc: accu: shut cush: he a oper: oil. isolat: parts Total: dirt four matic

Our chem: ical: to he: cific



circ: POWE

If your problem is

VIBRATION

NOISE

or PIPING ALIGNMENT...

Bring BELMONT into the Picture



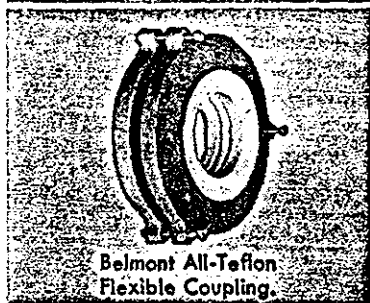
**EXPANSION JOINTS
and
FLEXIBLE COUPLINGS**

fit every Heating and Air Conditioning Need with Constructions of Rubber, Neoprene, Teflon-Lined Rubber, or all Teflon*.

*DuPont Trademark



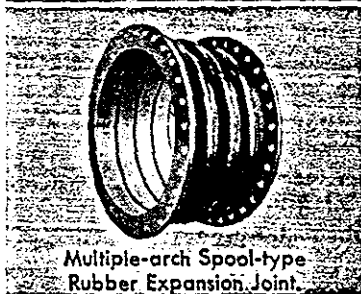
Belmont All-Teflon Expansion Joint.



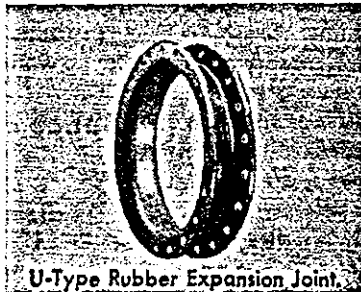
Belmont All-Teflon Flexible Coupling.



Spool-type Belmont Rubber Expansion Joint.



Multiple-arch Spool-type Rubber Expansion Joint.



U-Type Rubber Expansion Joint.

**AVAILABLE THROUGH
LOCAL AUTHORIZED
DISTRIBUTORS**

*Write for name of
distributor nearest you.*

Better Buy

BELMONT

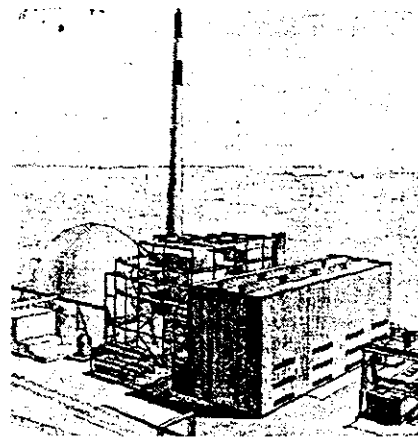
THE BELMONT PACKING & RUBBER COMPANY

Butler & Soprin Streets - Philadelphia 37, Pa.

Powerscope

with a plant using conventional fuel entirely." They've applied to the AEC for a construction permit. Total estimated cost of project: \$175 million. Stone & Webster Engineering Corp and Westinghouse Electric made the preliminary design of the plant (artist's sketch is shown below).

The Ravenswood reactor is to be an advanced version of Con Edison's Indian Point reactor. The nuclear process will account for about two-thirds of total energy output of the system; nuclear fuel will consist of 156 elements of a low-enriched (3.5%) uranium oxide.



Five primary coolant loops of pressurized water will operate at 2035 psia. Coolant temperature will rise from 543 F at inlet to 588 F at outlet, and will produce steam at 685 psig and 503 F in the boilers. That steam will be superheated to 1000 F in two oil-fired superheaters having a total capacity of 8.8 million lb per hr, and will reach the 1800-rpm turbine at 560 psig.

At reduced electric capacity, using isolating steam reboilers, some 2-million lb of steam per hr will be available for district heating. Plans call for completion by 1970.

Portable power generator makes no noise

SCAP is a Silent Compact Auxiliary Power plant developed by TAPCO div of Thompson Ramo Wooldridge Inc for the U.S. Army. Its mercury-

Rankine-cycle complete silent carbon fuel loop consists of a boiler, turbine at 2400 rpm, cooled mercury fan and condenser weighs about 10,000 lb and fits down into a 4-ft diameter. Right now it is experimental.

European planner

It isn't easy to get energy policy from the current: from the U.S. port on Feb. 14-15). Disputes are around and use of a group of European countries most a heavy General I and Energy Steel Corp of disapproval the Council agreement. A new F will be ap

Japan comes

Japanese port and chinery will supply turbines at public turbine for the Mexico turbine State of California, bid of lower U.S. combines in M