

FILE NAME: Kubota (KUB)

DATE: 0000

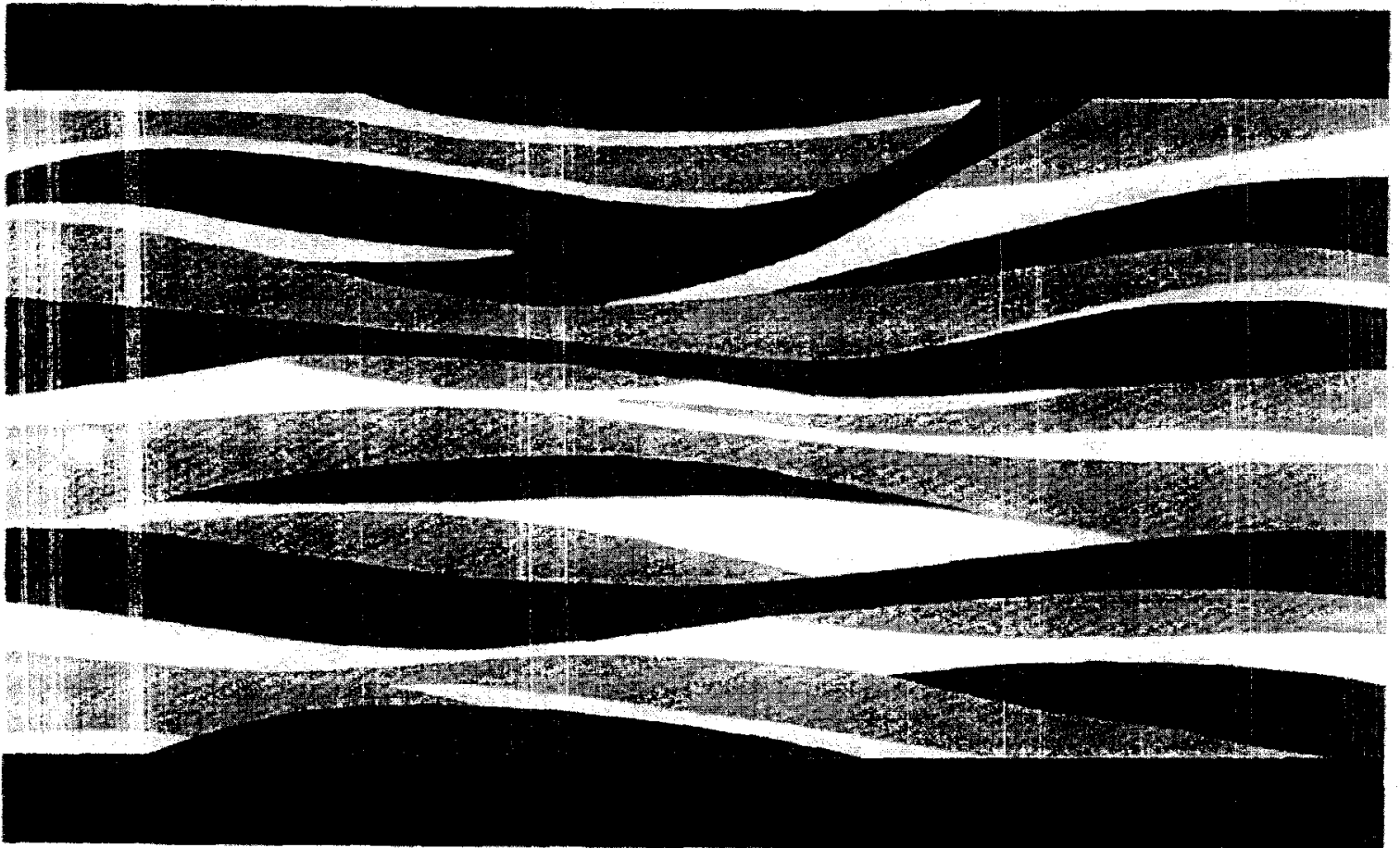
DOC#: KUB017

DOCUMENT DESCRIPTION: Legal - Deposition Prep - Voss Kubota
Brochure 1.10d Part 2

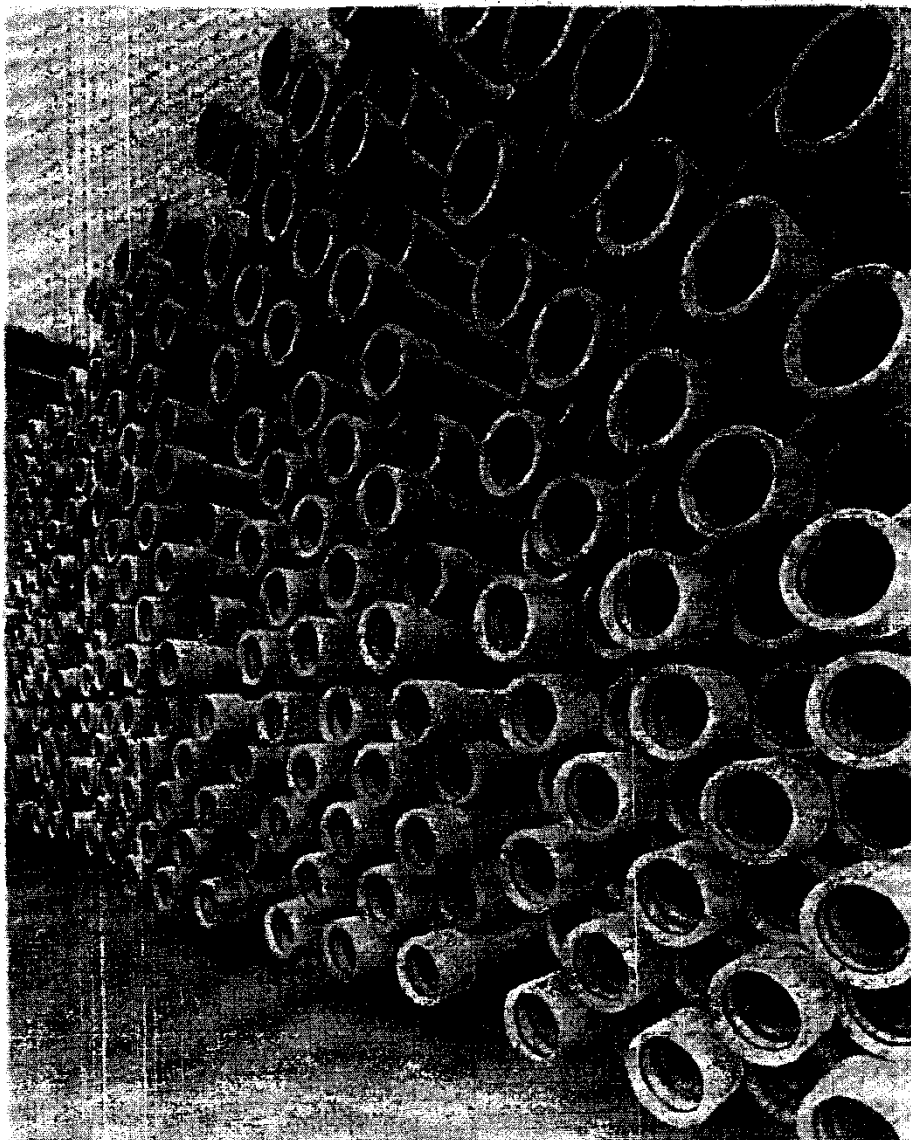


KUBOTA

Asbestos-Cement
Pressure Pipe



APPROVED ACCEPTED AVAILABLE



Asbestos-Cement Pressure Pipe



KUBOTA

2001 EAST CARSON STREET
P.O. BOX 20120
LOS ANGELES
CALIFORNIA 90021
PHONE (213) 775-5501

Kubota Asbestos-Cement Pressure Pipe has been used advantageously in most applications where fluids and/or gases are conveyed. Its efficient, trouble-free service has gained full approval of engineers and customers.

Kubota Pressure Pipe is composed of a mixture of portland cement, silica and high-grade asbestos fibers. The mixture is applied under high pressure around a smooth, polished steel mandrel until the required wall thickness is built up.

Kubota Pressure Pipe is dense and homogeneous in texture with a smooth interior surface. It is STEAM-CURED (autoclave) to assure chemical stability and greater mechanical strength.

In Kubota's finishing department the pipe ends are trimmed and machined to provide leak-proof seating surfaces for the KA coupling and sealing rings.

Quality control and superior properties distinguish Kubota Asbestos-Cement Pressure Pipe.

VOSS-KUBOTA serves your needs dependably and economically

APPROVED:

Kubota Asbestos-Cement Pressure Pipe is manufactured in Japan to rigid American Standards. It meets all the requirements of the American Waterworks Association, American Society for Testing Materials, and all pertinent U.S. Federal Specifications. It is listed with Underwriters Laboratories, Inc.

Each length of pipe and coupling is inspected at our Long Beach and Oakland facilities and is subjected to a hydrostatic test. Each standard length of pipe in sizes 3 in. and 4 in. is subjected to a neutral test.

ACCEPTED:

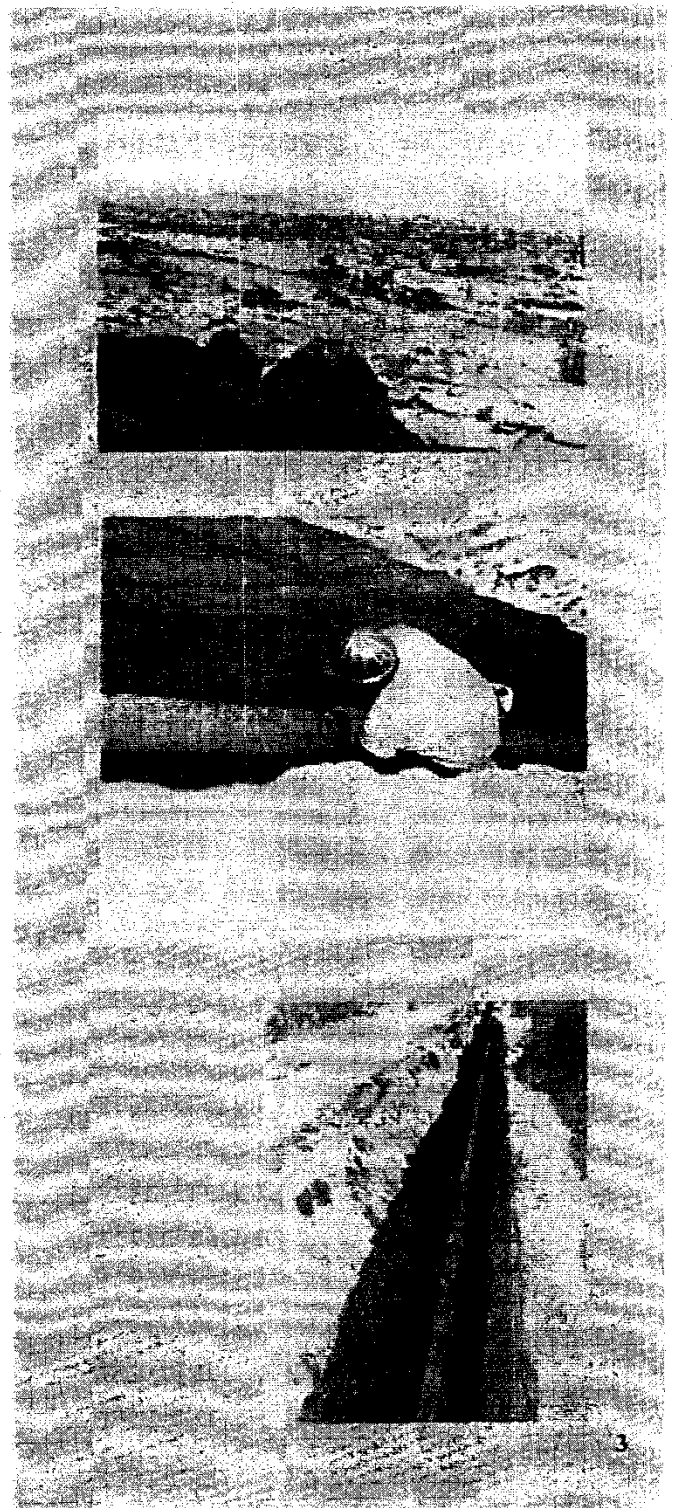
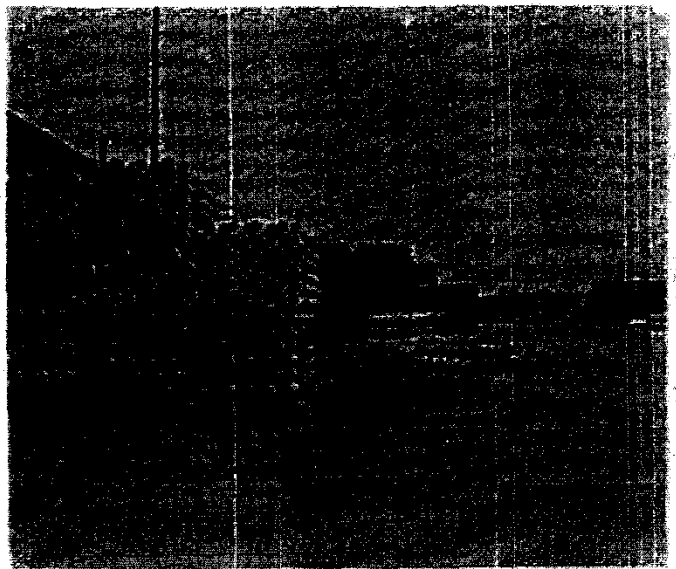
Kubota Asbestos-Cement Pressure Pipe has been accepted and used by organizations such as the East Bay Municipal Water District, City of Menlo Park, Los Angeles Department of Water, City of Santa Cruz, City of Santa Monica, Pacific Gas & Electric Company, Los Angeles, Garden City and many other locations. Contact all our local water purveyors today.

AVAILABLE:

Kubota Asbestos-Cement Pressure Pipe is readily used, easily dismantled, stored at all times — even through winter — and is available immediately.

NO DELAYS. With simple standard tools you can install (and) there's no waiting for parts — even on big jobs. Coupling is done rapidly and the line is ready for backfilling almost at once.

LOW COST INSTALLATION AND MAINTENANCE



VOSS-KUBOTA

ASBESTOS-CEMENT PRESSURE PIPE

MANUFACTURED AND QUALITY CONTROLLED
TO EXACTING U. S. STANDARDS

SPECIFICATIONS:

- Kubota A/C Pipe meets all current standards of the waterworks industry and the irrigation field.
- American Waterworks Association Specifications C400-64T and latest revisions thereof.
 - Federal Specifications for Asbestos Cement Pipe 58-F 35Ls.
 - American Society for Testing Material C298-65 Type II
- Kubota Pressure Pipe and Couplings, Class 100 Sizes 4 thru 12 inch, Class 150 Sizes 2 thru 12 inch, and Class 200 Sizes 4 thru 12 inch, are approved by the Underwriters' Laboratories and carry the Underwriters' Label of Approval.

DIMENSIONS:

Voss-Kubota A/C Pipe in all dimensions is interchangeable with, and identical to, all present domestic A/C pipe standards.

Machined End Dimensions will fit all standard ringtype cast iron valves and fittings.

Rough Barrel Dimensions will accommodate all standard rubber sleeves, clamps, etc.

Approximate rubber rings for cast iron fittings can be furnished upon request.

CORROSION RESISTANCE:

The use of standard composition steel for securing the joints in the 4 thru 12 inch pipe sizes has been approved by the Underwriters' Laboratories.

AVAILABILITY:

Kubota A/C Pipe Class 150 is stocked in stock in 2, 3, 4, 6, 8, 10 and 12 inch sizes in quantities ranging from 100 to 1000 feet in length 4 through 12 inch.

ORDERING DATA:

Kubota A/C Pipe is available in the following lengths:

Pipe Dia.	Full Length	Half Length	Quarter Length, MDA Machined Over A/C
2 in.	8 ft.	4 ft.	1 ft.
3 - 4 in.	10 ft.	5 ft.	3 1/4 ft.
4 - 12 in.	13 ft.	6 1/2 ft.	3 1/4 ft.

Our standard procedure is to fill each order with 96% full lengths, 2% half lengths, 2% quarter lengths, 3 coupling complete with rings for each length of pipe, and sufficient lubricant for installation.

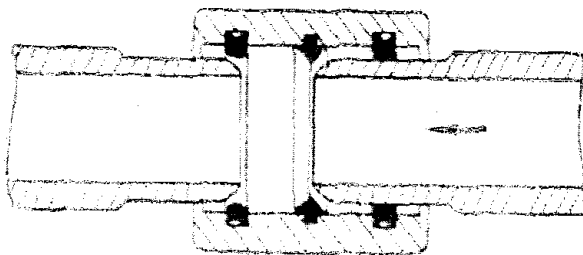
LISTED WITH UNDERWRITERS' LABORATORIES

"KA" COUPLINGS CUT CONSTRUCTION TIME

The KA Coupling consists of one sleeve with two rubber seal rings and one center spacer/stop ring which prevents the pipe ends from butting together. The sleeve is made of the same material as Kubota Asbestos-Cement Pressure Pipe. Tests and inspection guarantee performance of KA Couplings.

KA Couplings are quickly and easily assembled as shown. Each pipe is simply pulled into the sleeve, firmly compressing the rubber rings to the bottoms of the grooves. This forms a tight, flexible joint.

Lubricate pipe ends with any quality, non-fat vegetable compound lubricant. (Sufficient lubricant is furnished with each order of pipe.) Align the lubricated pipe end with the coupling and pull the coupling or push the pipe to the spacer/stop ring.



The couplings are designed so that, as water pressure increases, the tightness of the seal also increases. The stop ring provides automatic separation of the pipe ends to allow for expansion and deflection at each coupling.

The KA Coupling requires no skilled labor. No puller is required for regular sizes. Assembly is quick even under difficult weather or ground conditions.

One asbestos-cement coupling, complete with rubber rings, is furnished with each length of pipe. To connect Kubota A/C Pipe with an existing pipe installation, it is recommended that an existing pipe coupling be used. An alternate is the use of a cast iron transition coupling.



COMPOSITION:

Pipe and couplings are composed of a mixture of portland cement, asbestos fiber and silica, and are free from organic additives. To provide a dense, homogeneous texture and a smooth interior surface, the pipe is formed under pressure on a steel mandrel. The mixture of cement, silica and asbestos fibers contains no grit or other contaminants. The uncombined calcium hydroxide content of Kubota A/C Pipe is less than 1%.

CLASSES AND SIZES:

Kubota Asbestos-Cement Pressure Pipe is manufactured for use in water service at maximum operating pressures of 100, 150, or 200 pounds per square inch. Pipes are designated as Class 100, 150, and 200 respectively for the above maximum operating pressures.

Kubota Asbestos-Cement Pressure Pipe is made in nominal sizes of 2, 3, 4, 6, 8, 10 and 12 in. The plant size and date of manufacture are indelibly marked on the surface of the pipe. The standard length for 2-in. pipe is 3 ft., and for 3 in. it is 10 ft. Standard length for 4-in. pipe is 13 ft., although it is also available in 10-ft. length. All sizes over 4-in. have a standard length of 13 ft. (For pipe larger than 10-in. diameter, lengths of 10 ft., 6 in. are available on special order.)

TYPICAL Engineering Advantages

Due to its physical properties, Superior Pressure Pipe offers a series of important advantages which can be briefly summarized as follows:

DURABILITY

Kutson Pipe is free from corrosion and the problem of electrolysis is eliminated. Durability is guaranteed by the very components of the pipe, fittings and cement. Being non-metallic, Kutson Pipe is guaranteed by steel pipe is virtually.

STRENGTH

The strength and quality of the product is guaranteed by tests and inspections to standards as high as or similar to steel pipes.

HIGH CARRYING CAPACITY

Kutson Pipe is designed for carrying large volumes of water and gas. Its smooth interior surface and its rigid walls make it an excellent choice for carrying water and gas.

According to the theory of fluid flow, the rate of flow of water through a pipe is directly related to the cross-sectional area of the pipe. Since the cross-sectional area of a pipe is 30-50% greater than that of a steel pipe of equal diameter after 10 years of use, Kutson Pipe will carry 30-50% more water than a steel pipe of equal diameter after 10 years of use.

EASY ASSEMBLY WITH TIGHT AND FLEXIBLE COUPLINGS

Kutson HD type couplings and rubber rings assure permanently tight and flexible assemblies, allowing for vibration, expansion and other line movements.

Pipe can be assembled rapidly without the need for up to 5% deflection per joint permitting radius curves to be incorporated in the assembly without the use of special jacks.

LIGHTWEIGHT

Kutson Pipe is designed for easy handling. Its light weight and its average length of 10 feet makes it easy to handle and install. It is also easy to handle and install.

ECONOMY

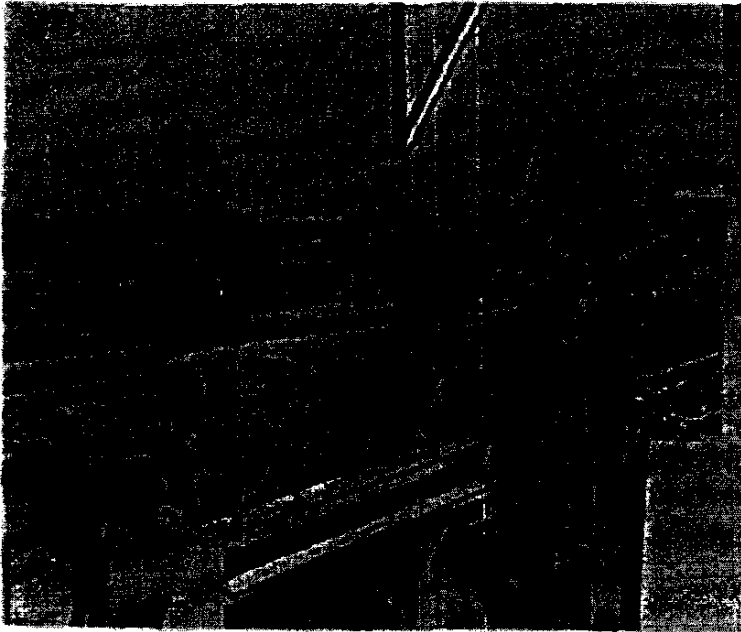
Kutson Pipe is designed for economy in installation and operation.

THERMAL INSULATION

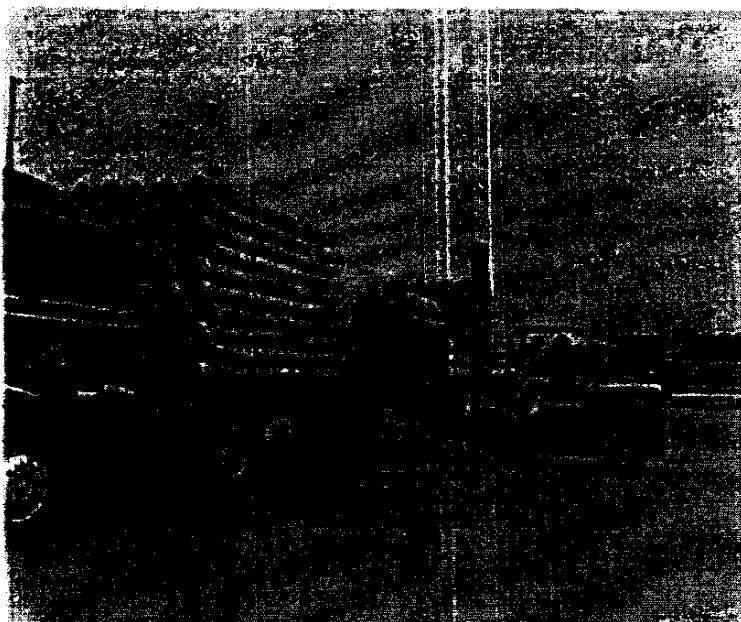
Kutson Pipe is designed for thermal insulation. It is designed to carry 100 degrees Fahrenheit water. Therefore, the pipe will not need to be protected from extremes of temperature as is the case with metal pipe.

CAST IRON FITTINGS

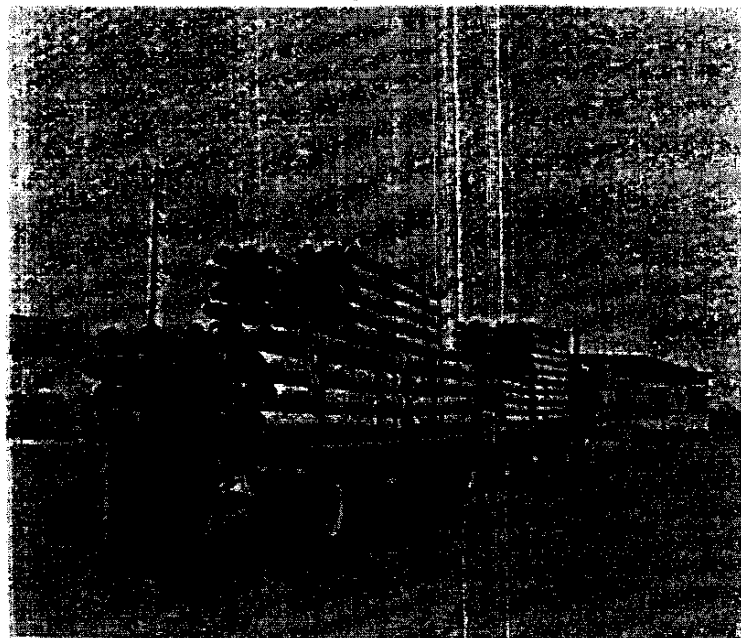
Kutson Pipe is designed for use with cast iron fittings. The fittings can be used in the assembly of Kutson Pressure Pipe.



Voss yards are equipped for cutting short sections and remachining ends to accept Voss KA Couplings.



Above, readying another load of Voss Kubota Pipe. Below, a final check to assure delivery without damage.



KUBOTA

2303 EAST CARSON STREET
P.O. BOX 20330
LONG BEACH
CALIFORNIA 90801
PHONE (213) 775-3681

TEST RESULTS

HYDROSTATIC AND OTHER TESTS

Each length of pipe and coupling is subjected to a hydrostatic test at the test pressure given in the following table prior to shipment.

Class	Working Pressure (psi)	Test Pressure (psi)
100	100	350
150	150	525
200	200	700

Flexural Strength

Each length of pipe and coupling is subjected to a hydrostatic test. 8 inches is subjected to a flexural test and warranted to have sufficient strength to withstand the total load required.

Crushing Strength

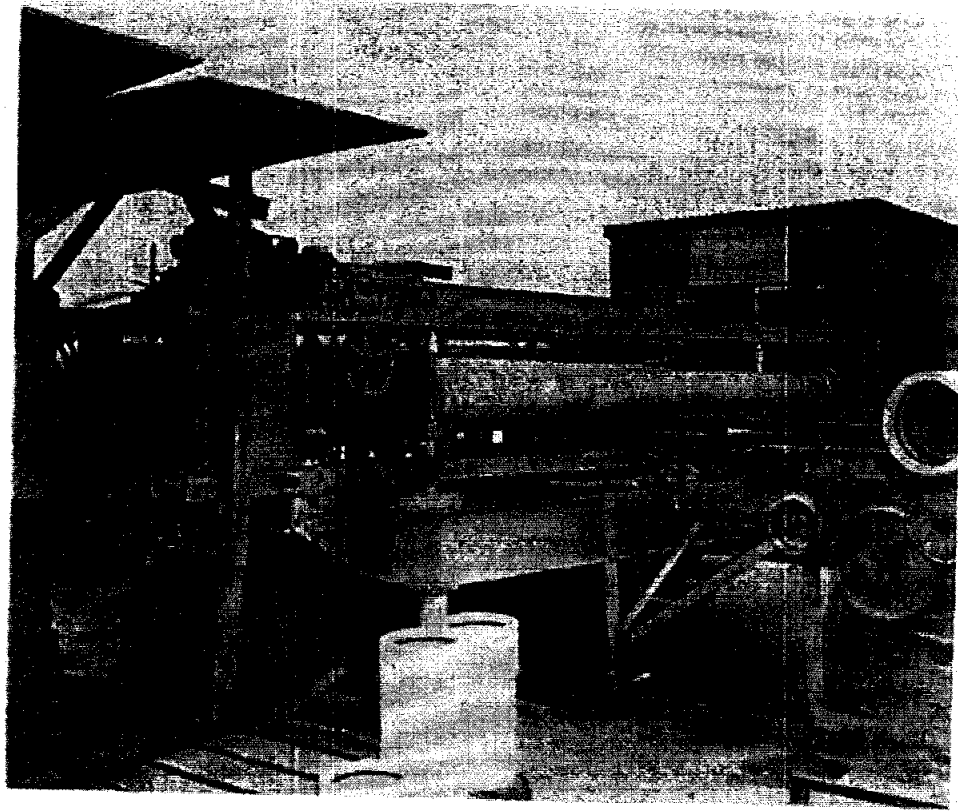
Kubota Pressure Pipe is tested for crushing strength in each size and class in accordance with AWWA 3-Edge Bearing Method.

FLEXURAL STRENGTH (Class 150)

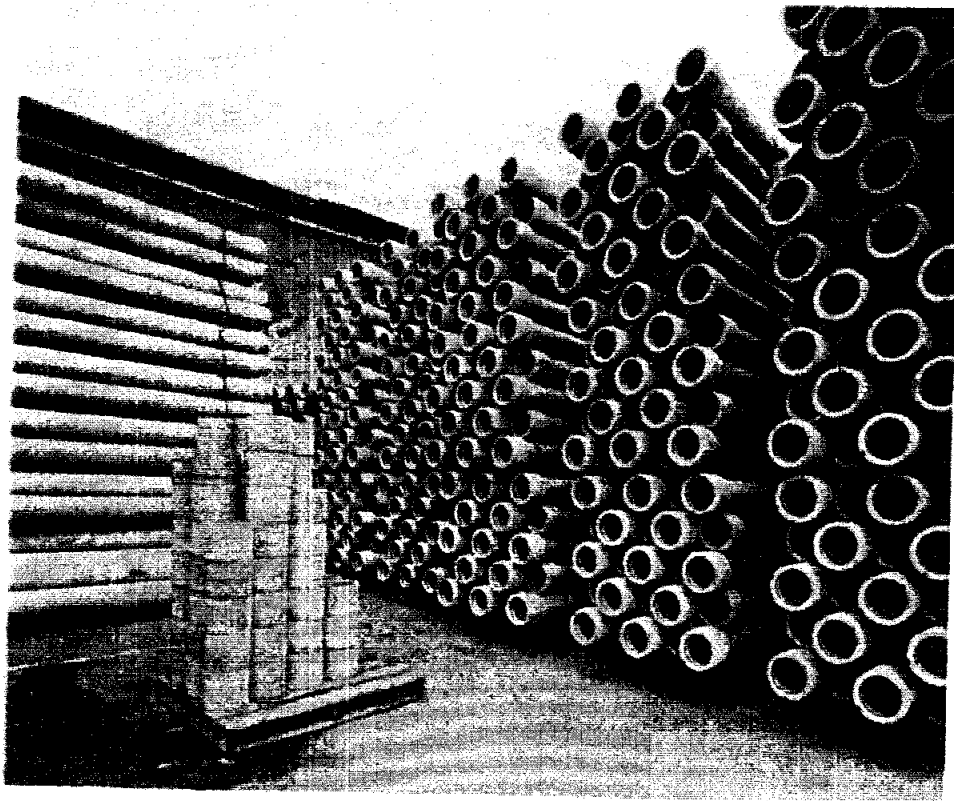
Pipe Size (in.)	AWWA C400-65T Load Required (lbs.)	Test Result (lbs.)
4"	1,100	1,440
6"	2,300	3,500
8"	3,700	6,590

CRUSHING STRENGTH (Class 150)

Pipe Size (in.)	AWWA C400-65T Load Required (lbs.)	Test Result (lbs.)
4"	5,400	12,200
6"	5,400	13,500
8"	5,500	11,600
10"	7,000	15,140
12"	7,500	18,500



All Vasa Kubota Pipe and Couplings are thoroughly tested (above) before being stockpiled for shipment (below).

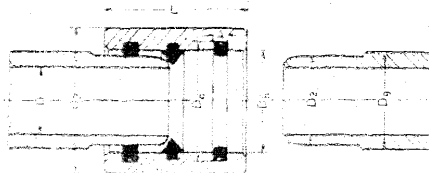


DIMENSIONS

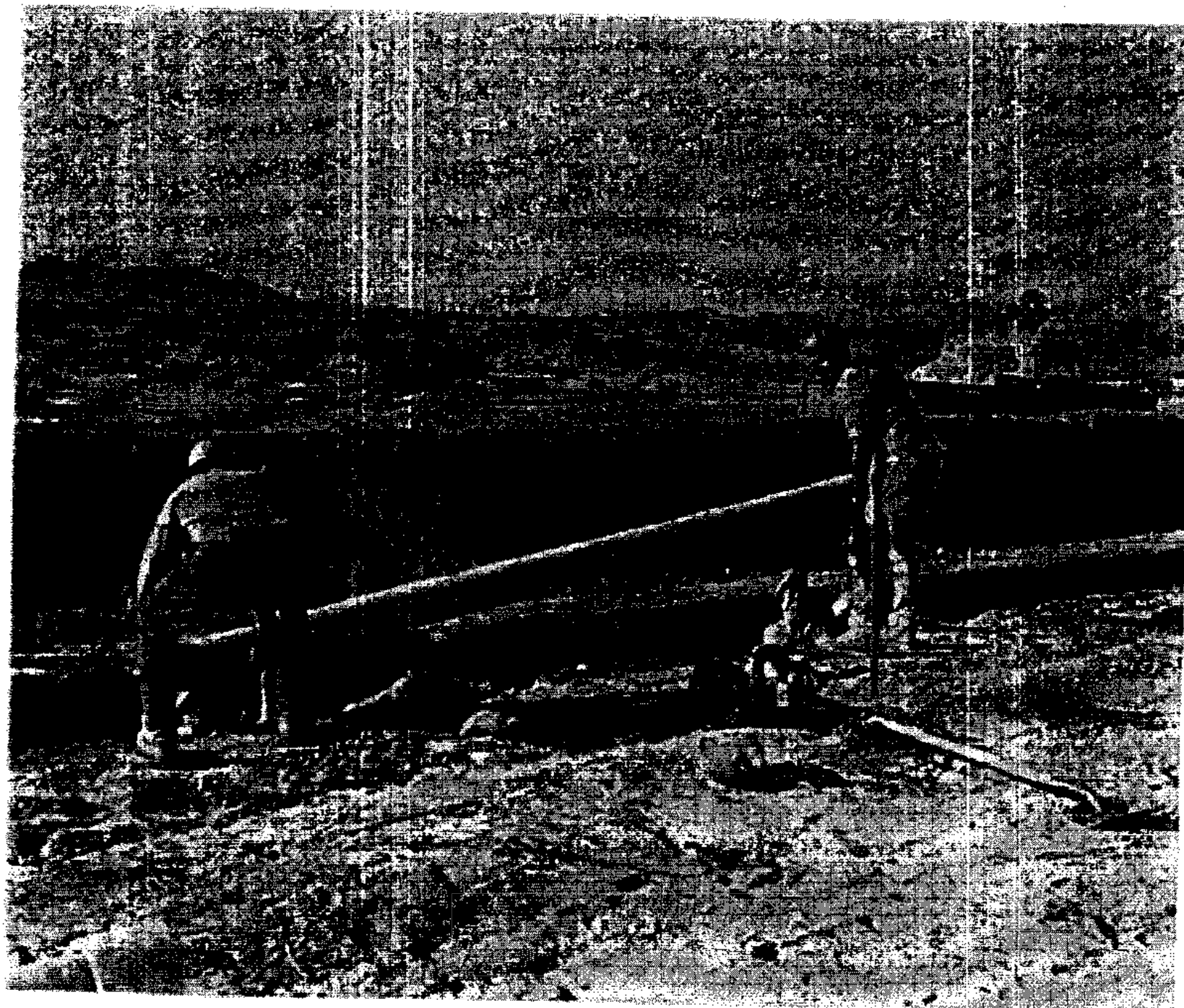
FOR VOSS-KUBOTA ASBESTOS-CEMENT
PRESSURE PIPE AND COUPLINGS

PIPE LENGTH

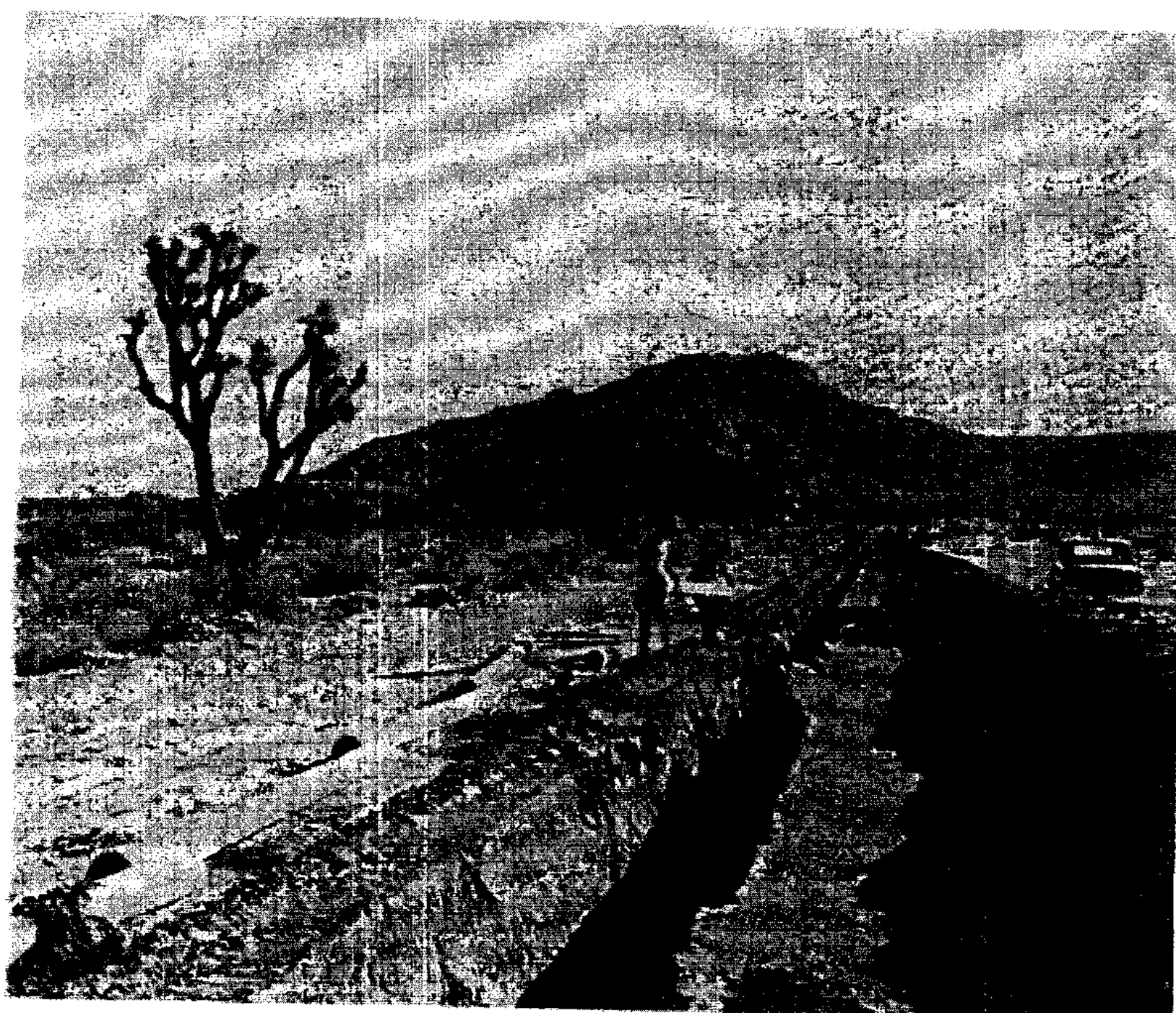
Pipe Size	Standard Length	Half Length	Quarter Length
2 in.	9' 0"	4' 6"	2' 3"
3 in.	10' 0"	5' 0"	2' 6"
4 in. thru 24 in.	12' 0"	6' 0"	3' 0"



DIMENSIONS OF PIPE AND COUPLING IN INCHES										WEIGHT (LBS.)	
CLASS	NOMINAL PIPE SIZE	D	OD	WT	WT	WT	WT	WT	WT	WT per Standard Length	WT per Coupling
100	2	2.36	3.74	4.00	1.98	1.98	7.00	4.45	0.47	41	10.4
	3	3.15	4.51	4.57	2.09	2.09	7.00	4.57	0.47	73	16.1
	4	3.41	4.91	7.07	2.12	2.12	7.00	4.57	0.55	124	10.2
	6	3.85	5.11	9.15	2.15	2.15	7.00	4.57	0.55	161	15.1
	8	4.45	5.89	11.03	2.18	2.18	7.00	4.57	0.55	207	16.7
	10	4.75	6.07	11.03	2.18	2.18	7.00	4.57	0.55	241	18.0
	12	5.15	6.47	11.03	2.18	2.18	7.00	4.57	0.55	283	19.3
	14	5.55	6.87	11.03	2.18	2.18	7.00	4.57	0.55	325	20.6
	16	5.95	7.27	11.03	2.18	2.18	7.00	4.57	0.55	367	21.9
	18	6.35	7.67	11.03	2.18	2.18	7.00	4.57	0.55	409	23.2
150	2	2.36	3.74	4.00	1.98	1.98	7.00	4.45	0.47	41	10.4
	3	3.15	4.51	4.57	2.09	2.09	7.00	4.57	0.47	73	16.1
	4	3.41	4.91	7.07	2.12	2.12	7.00	4.57	0.55	124	10.2
	6	3.85	5.11	9.15	2.15	2.15	7.00	4.57	0.55	161	15.1
	8	4.45	5.89	11.03	2.18	2.18	7.00	4.57	0.55	207	16.7
	10	4.75	6.07	11.03	2.18	2.18	7.00	4.57	0.55	241	18.0
	12	5.15	6.47	11.03	2.18	2.18	7.00	4.57	0.55	283	19.3
	14	5.55	6.87	11.03	2.18	2.18	7.00	4.57	0.55	325	20.6
	16	5.95	7.27	11.03	2.18	2.18	7.00	4.57	0.55	367	21.9
	18	6.35	7.67	11.03	2.18	2.18	7.00	4.57	0.55	409	23.2
200	2	2.36	3.74	4.00	1.98	1.98	7.00	4.45	0.47	41	10.4
	3	3.15	4.51	4.57	2.09	2.09	7.00	4.57	0.47	73	16.1
	4	3.41	4.91	7.07	2.12	2.12	7.00	4.57	0.55	124	10.2
	6	3.85	5.11	9.15	2.15	2.15	7.00	4.57	0.55	161	15.1
	8	4.45	5.89	11.03	2.18	2.18	7.00	4.57	0.55	207	16.7
	10	4.75	6.07	11.03	2.18	2.18	7.00	4.57	0.55	241	18.0
	12	5.15	6.47	11.03	2.18	2.18	7.00	4.57	0.55	283	19.3
	14	5.55	6.87	11.03	2.18	2.18	7.00	4.57	0.55	325	20.6
	16	5.95	7.27	11.03	2.18	2.18	7.00	4.57	0.55	367	21.9
	18	6.35	7.67	11.03	2.18	2.18	7.00	4.57	0.55	409	23.2

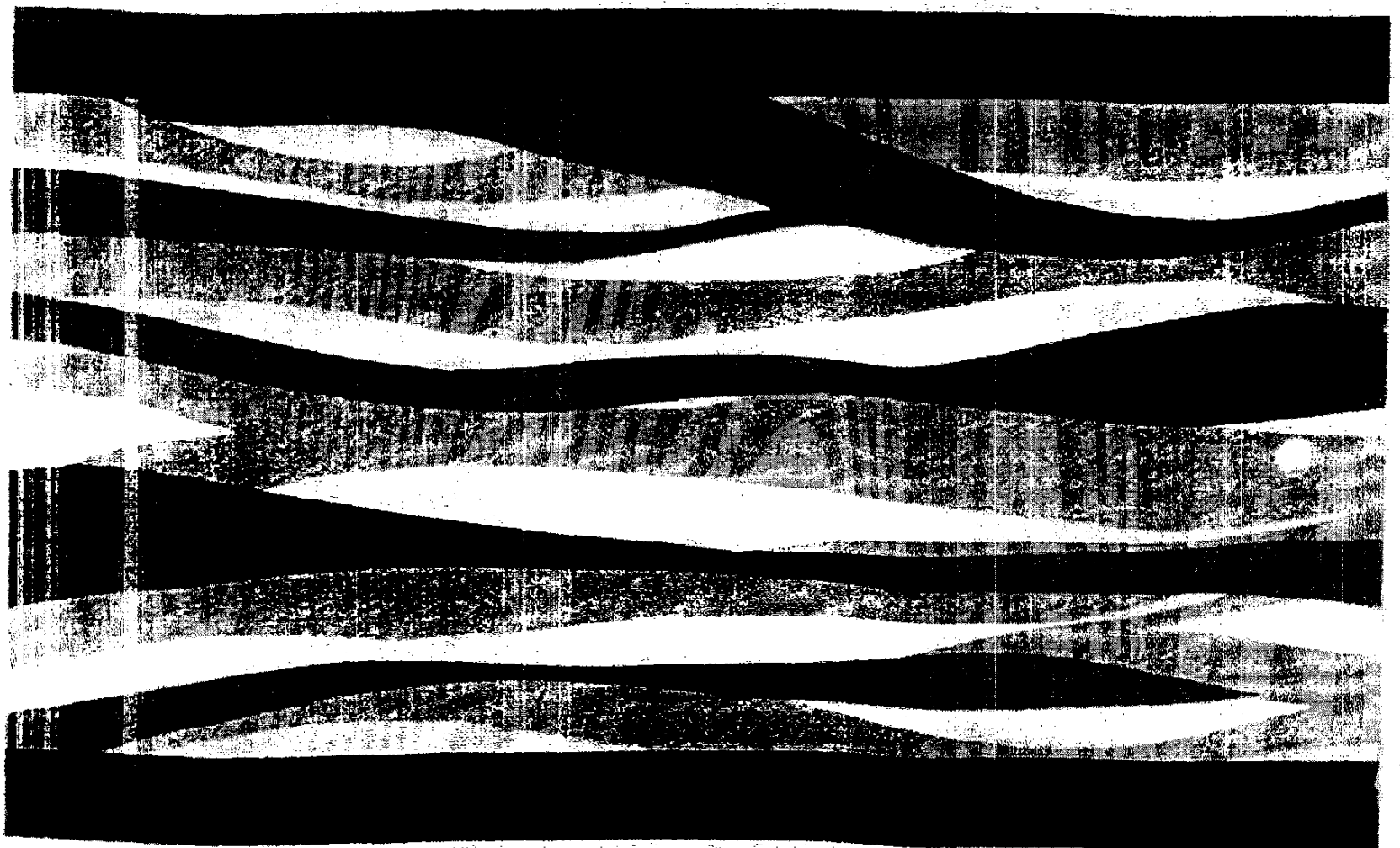


The light weight (above) and simple coupling method of Voss Kubota Pipe means small crews and minimum equipment (below).



EVERY VOSS-KUBOTA PIPE AND COUPLING INSTALLATION IS PROTECTED BY THIS WARRANTY

Voss warrants Voss-Kubota asbestos cement pipe and couplings to be free from defects. THERE IS NO OTHER WARRANTY EXPRESS OR IMPLIED, EXCEPT AS EXPRESSLY STATED IN THE PRECEDING SENTENCE. THERE IS NO WARRANTY OF CONFORMITY TO ANY SAMPLE OR DESCRIPTION (INCLUDING WITHOUT LIMITATION TO ANY DESCRIPTION CONTAINED IN THIS CATALOG), OR OF MERCHANTABILITY, OR OF FITNESS FOR ANY PURPOSE. Voss's liability to Buyer and Buyer's sole and exclusive remedy is expressly limited to replacement (but not installation) without charge of defective materials within one year from the date of delivery to Buyer; provided that within this one year period (1) Buyer gives Voss written notice of any defect within 15 days from Buyer's discovery thereof, and (2) Voss is given reasonable opportunity to inspect the pipe and couplings claimed to be defective, as well as the installation and use of such pipe and couplings. Voss shall not be liable for any incidental or consequential damages for breach of warranty. No agent, employee or representative of Voss has authority to bind Voss to any affirmation, promise, representation or warranty other than expressly provided in this paragraph.



VOSS INTERNATIONAL CORPORATION
MAIN OFFICE
2303 E. Carson Street • Long Beach, Calif. 90801
Post Office Box 20330 • Phone (213) 775-3681

BRANCH OFFICE
P.O. Box 578, Oakland, Calif. 94601
Phone (415) 893-6053