

Title: **17/19DM AND 17/19DR DISCHARGE LINE SILENCERS**

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Models Affected: ALL 17/19DM AND 17/19DR CHILLERS

PURPOSE: The purpose of this Bulletin is to provide service personnel with the information necessary to order and install a discharge line silencer on 17/19DM and 17/19DR chillers.

BACKGROUND: Silencer packages have been developed for 17/19DM and 17/19DR chillers for applications where a reduction in sound level is desired. The noise level is most significantly reduced on the discharge line side of the chiller. The typical average ARI 575 noise reductions for a 19DR chiller with DM 3 size compressors is in the 4-5 DBA range on machines tested to date.

The major improvement from the silencers is the attenuation of compressor blade passage frequency which is in the range where the human ear is most sensitive.

These silencers have been designed for the life of the chiller and have undergone a reliability test and field trial program. They can be used to make the noise level more satisfactory to our customer and enhance the quality of our chillers.

PART NUMBERS: Following is a cross-reference chart for determining the part number of the silencer to be used.

Chiller	Compressor Size	Silencer Part No.	Silencer Nominal Size
17/19DM	17/19DM 2 Size	19DM312-654	8 X 13
17/19DM	17/19DM 3 Size	19DM312-674	10 X 16
17/19DR	17/19DK & DM 2 Size	19DM312-664	8 X 16
17/19DR	17/19DK & DM 3 Size	19DM312-674	10 X 16

Note: Silencers are not available for 17/19DK machines.

The compressor size can be determined by the compressor part number on the machine nameplate. For example, the compressor part number on the nameplate is 19DM312-204. The compressor is a DM 3 size. The first number after the 19DM model number is the size. Remember that the 19DR chillers can have a 2 and 3 size compressor.

MAIL KEYS: 2.33B, 2.33D, 2.40B, 2.45, 2.53, 5.14A, and 5.14B

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INSTALLATION: The silencer assembly as received will consist of three pieces. There will be the silencer, the mounting frame, and an angle strip which will form the top part of the frame at installation. The silencer has been inserted in the frame for shipping purposes. The silencer can be removed by spreading the frame slightly by hand.

Orientation of the silencer assembly in the pipe is important. It must be as shown on the following pages. Never install the silencer assembly horizontally in the discharge pipe.

The frame (with silencer removed) is welded into the discharge pipe of the compressor as shown on pages 3,4,5 & 6. Page 3 shows a cross-section of the pipe and frame. Pages 4, 5, & 6 show how the silencer assembly is installed in the discharge pipes of the various size compressors. It is recommended that four 1" long welds be used equally spaced down each edge of the frame. This is a total of 16 1" long welds per silencer assembly.

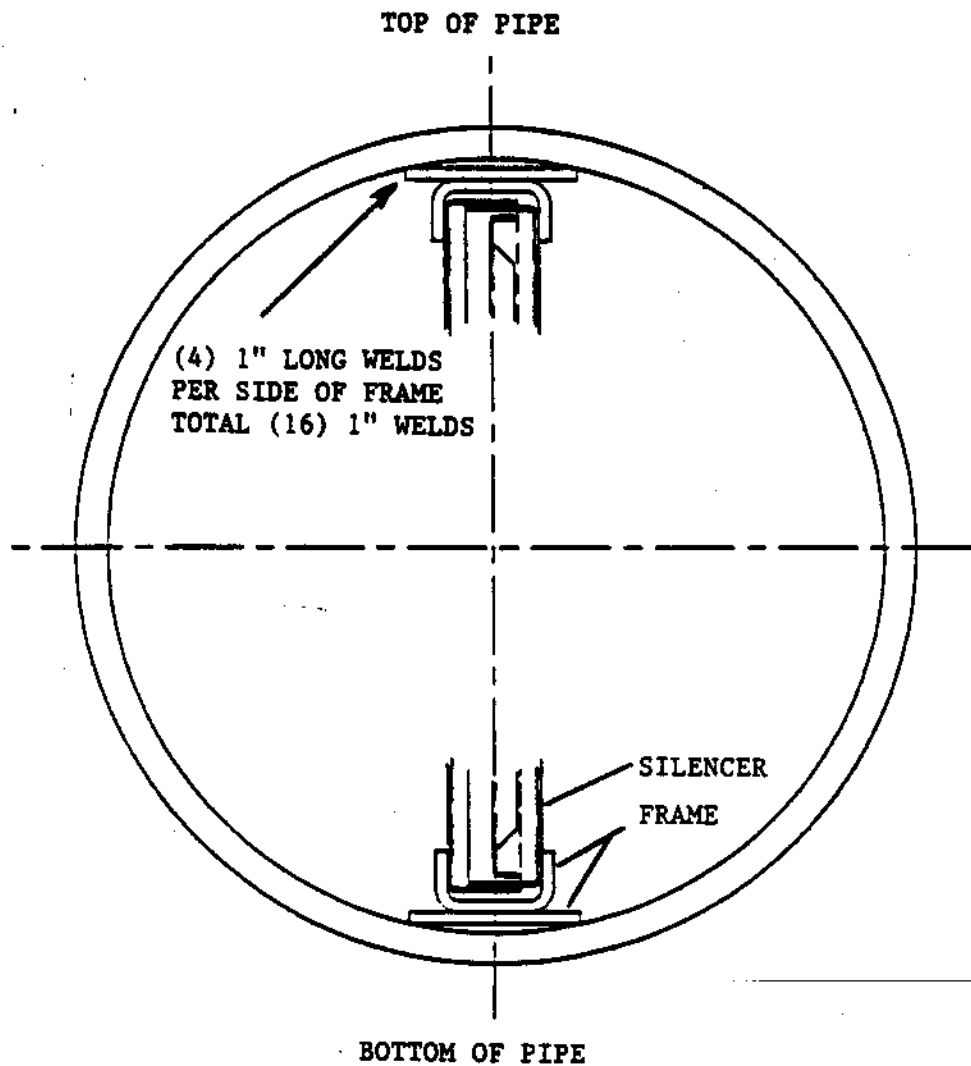
On 17/19DM machines with a 2 or 3 size compressor and on 17/19DR machines with DM and DK 2 size compressors the silencer frame can be inserted directly into the discharge pipe, after the compressor has been removed. See pages 4 and 5.

On 17/19DR machines with DM and DK 3 size compressors the silencer assembly must be installed in the lower leg of the mitered discharge pipe. This means the pipe must be cut as shown on page 6. The discharge pipe can then be removed from the machine by unbolting the discharge flange. The frame is then inserted into the pipe as shown and welded.

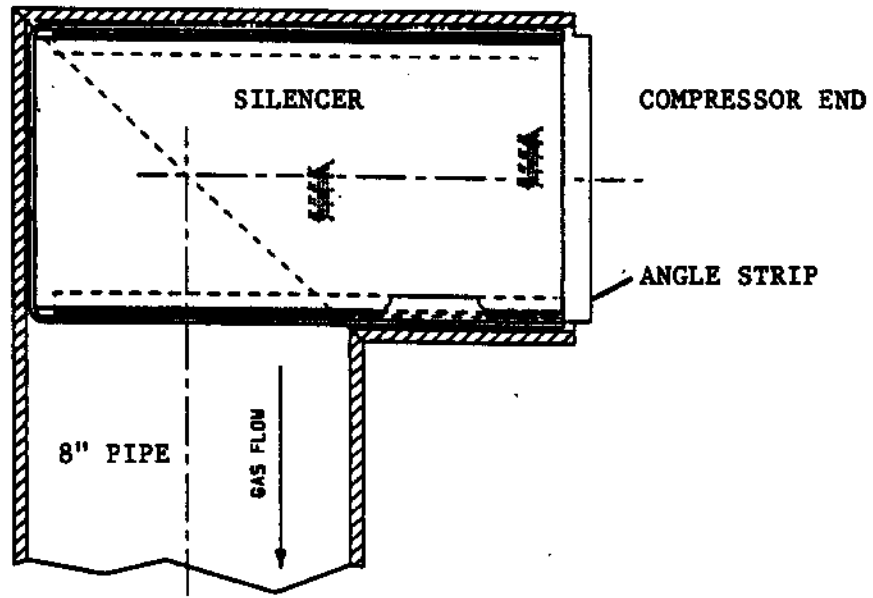
After the frame is welded in the pipe the silencer should be compressed as much as possible by hand and inserted into the frame. If it cannot be compressed enough by hand, a C-clamp can be used. The angle strip is then placed across the top of the silencer and welded at both sides to the frame.

When the discharge pipe is cut to insert a silencer, it is recommended that a weld ring be used when rewelding the pipe. (Slip-on flanges with a viton gasket are optional in place of welding).

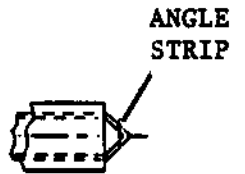
AVAILABILITY: Silencers and associated pricing will be available from RCD approximately July 1, 1989.



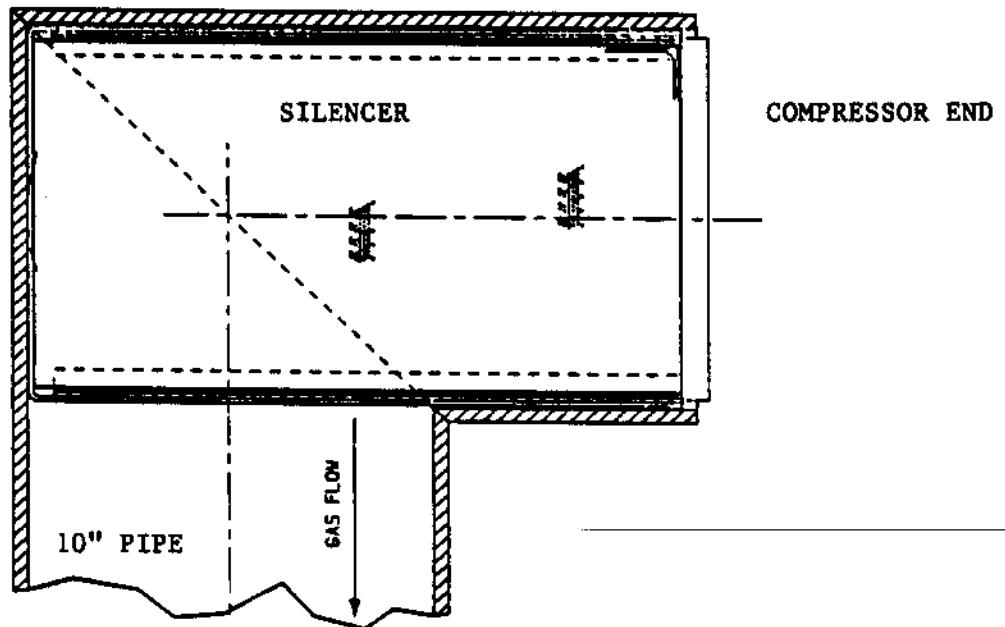
SILENCER LOCATION



19DM MACHINE 19DM2 COMPRESSOR
USE 19DM312-654 SILENCER ASSEMBLY
NOMINAL SIZE 8" x 13"

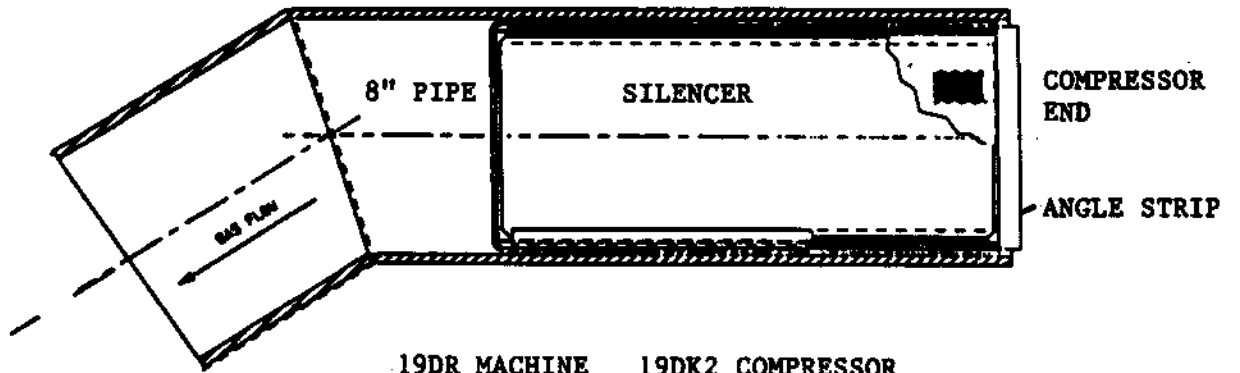


TOP VIEW

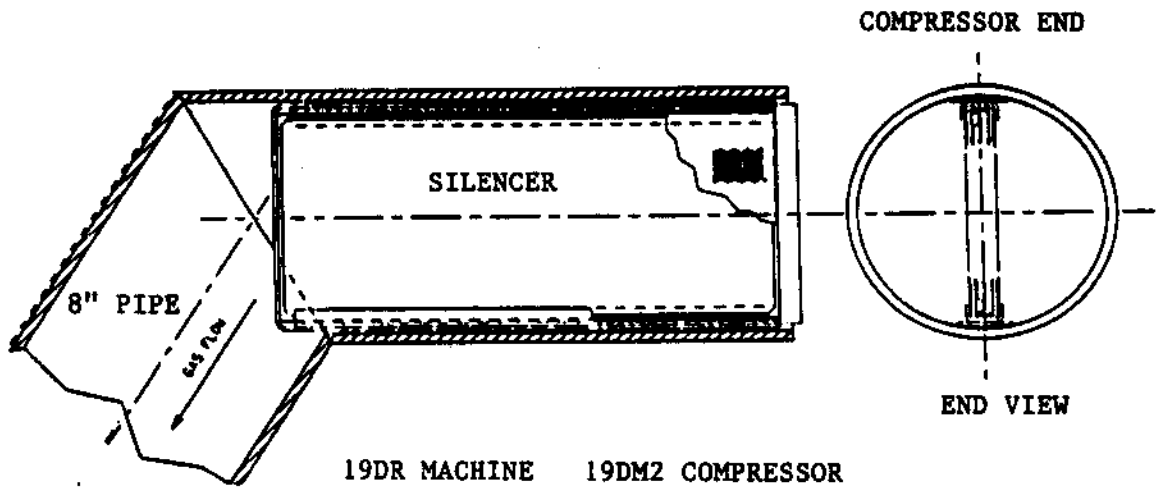


19DM MACHINE 19DM3 COMPRESSOR
USE 19DM312-674 SILENCER ASSEMBLY
NOMINAL SIZE 10" x 16"

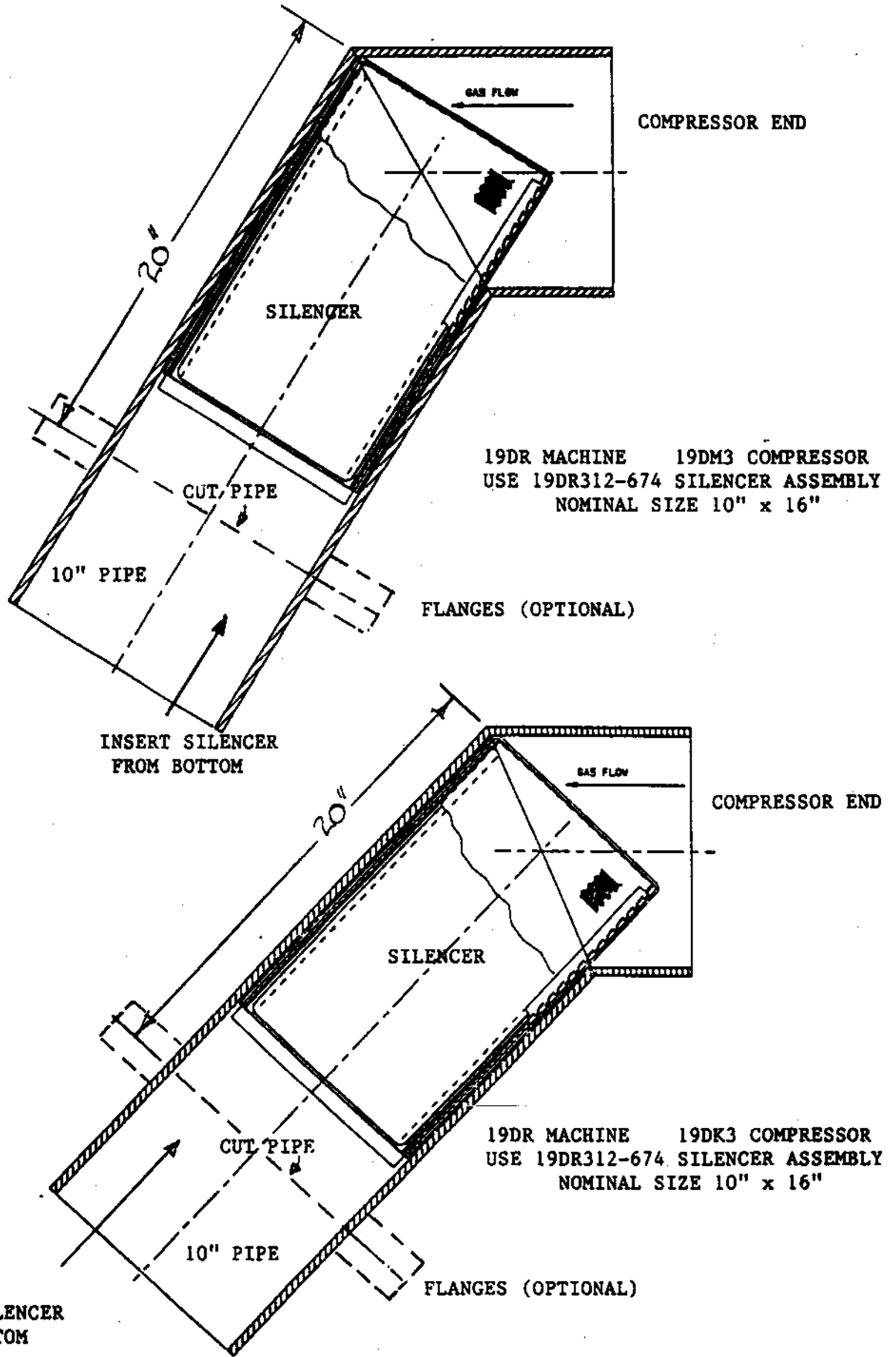
SILENCER LOCATION



19DR MACHINE 19DK2 COMPRESSOR
USE 19DM312-664 SILENCER ASSEMBLY
NOMINAL SIZE 8" x 16"



19DR MACHINE 19DM2 COMPRESSOR
USE 19DR312-664 SILENCER ASSEMBLY
NOMINAL SIZE 8" x 16"



SILENCER LOCATION