



# FAESSLER TOOLS



THE J. FAESSLER MANUFACTURING COMPANY • MOBERLY, MO.

CATALOG No. 38

CHRIS AHRENS

## INTRODUCTION

### ABOUT OURSELVES AND OUR PRODUCTS

Faessler boilermakers' tools first appeared more than sixty years ago. Ever since, we have specialized on this one line.

Through the years we have constantly introduced new tools, and improved the design and quality of existing tools.

As the demand for tools to roll heavier tubes in thicker tube sheets for higher pressures has developed, we have designed and produced efficient and durable tools to meet these requirements.

We believe our line of Tube Expanders and Tube Rolling Equipment is unsurpassed for all types of boilers and steam generating units. Every tool we manufacture is made of the alloy steels we have found by experience to be the best obtainable for each part.

This careful selection of material, correct design, accurate machining and proper heat treatment of each part, combine to produce the highest grade tools. The reputation of Faessler Tools is world-wide, and we shall continue to maintain their high standard of excellence.

### SPECIAL TOOLS

Much of our business has been developed by our ability to design and produce special tools for difficult tube rolling jobs.

If a drawing and a complete description of the work to be done are submitted to us, our engineers will endeavor to design tools suitable for your requirements.

We invite you to use this service, as it is free.

### OUR GUARANTEE

We guarantee every tool listed in this catalogue to be as represented, and agree to repair or replace any parts which show evidence of having been defective in material or workmanship.

**THE J. FAESSLER MANUFACTURING CO.**  
Main Office and Plant: Moberly, Mo.

Copyright, 1945 By  
THE J. FAESSLER MANUFACTURING COMPANY

Published September, 1945

*Printed in the United States of America*

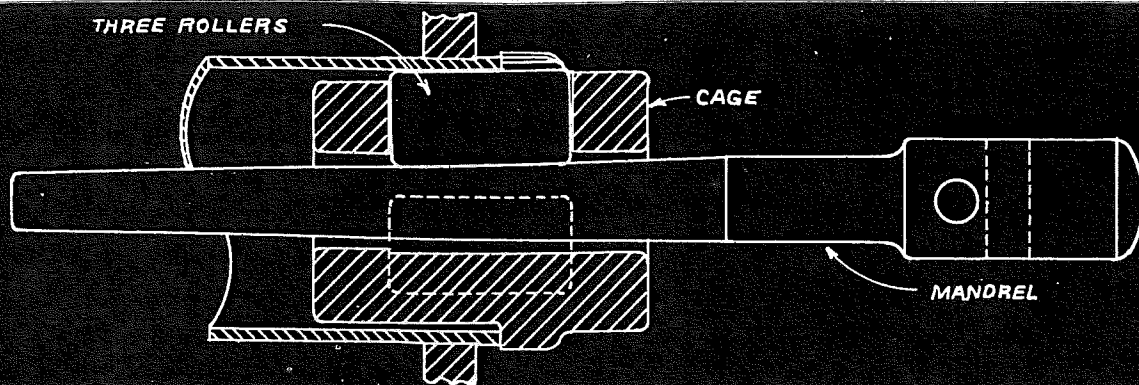
# INDEX

	Page No.		Page No.
Adapter Sleeves .....	24	Mandrels, Reverse Rolling, Application of ..	28
Adapter Sleeves, Application of .....	27, 28	Parallel Rolling Expanders .....	13, 17, 19, 20, 29, 30, 32
Application of No. 3274 Expanders, and Tube Rolling Equipment .....	27, 28	Rolling and Flaring Expanders .....	13, 14, 17, 19, 20, 29, 30, 32
Arch Tube Expanders .....	9, 13	Reverse Rolling Mandrels .....	24
Boss Three-Roller Expanders .....	5	Reverse Rolling Mandrels, Application of ..	28
Boss Five-Roller Expanders .....	10	Ratchet Wrench, Reversible .....	25
Built-Up-Cage Expanders .....	11	Sleeves, Adapter .....	24
Cutters, Tube .....	15, 16	Sleeves, Adapter, Application of .....	27, 28
Drive Heads .....	24	Solid Collar Three-Roller Expanders.....	7
Drive Heads, Application of .....	27, 28	Solid Collar Five-Roller Expanders .....	8
Drive Heads, Universal Joint .....	24	Standard Built-Up-Cage Expanders .....	11
Application of Above .....	27, 28	Tube Cutters .....	15, 16
Drive Shafts .....	24	Tube Rolling Equipment .....	24
Drive Shafts, Application of .....	27, 28	Tube Rolling Equipment, Application of ..	27, 28
Drive, Gear .....	26	Universal Three-Roller Expanders .....	6
Drive, Gear, Application of .....	28	Universal Five-Roller Expanders .....	12
Data, Specification of No. 3274 Expanders ..	22	Universal Joints, Double .....	24
Data, Specification of No. 3273 Expanders ..	18	Universal Joint Drive Heads .....	24
Double Universal Joint .....	24	Application of above .....	27, 28
Expanding and Flaring Expanders .....	13, 14, 17, 19, 20, 29, 30, 32	Wrench, Ratchet, Reversible .....	25
Equipment, Tube Rolling .....	24	No. 1936 Seven-Roller Arch Tube Expander ..	13
Application of Above Equipment .....	27, 28	No. 2117 Seven-Roller Flaring Tube Ex- pander .....	14
Faessler Special Three-Roller Expanders..	7	No. 3273 Rolling and Flaring Expander..	17
Faessler Special Five-Roller Expanders....	8	No. S-3273 Rolling and Flaring Expander ..	19
Flaring Tube Expanders .....	13, 14, 17, 19, 20, 29, 30, 32	No. 3274 Rolling and Flaring Expander..	20
Gear Drive .....	26	No. 3480 Rolling and Flaring Expander..	32
Gear Drive, Application of .....	28	No. 3747 Rolling and Flaring Expander..	29
Joints, Universal .....	24	No. C-3926 Rolling and Flaring Expander ..	30
Joints, Universal, Drive Heads .....	24	No. 3679 Drive Heads .....	24
Application of Above .....	27, 28	No. 3680 Drive Shafts .....	24
Locomotive Arch Tube Expanders .....	9, 13	No. 3681 Adapter Sleeves .....	24
Locomotive Superheater Expanders, 8, 10, 11, 12, 14		No. 3682 Universal Joint Drive Head ....	25
Mandrels, "A", "B", "C", "D", Short ....	23	No. 3733-18, Reversible Ratchet Wrench..	25
Mandrels, A, B, C, D, Application of ....	27, 28	No. 3760-6 Gear Drive .....	26
Mandrels, Reverse Rolling .....	24	No. 3921 Universal Joint Drive Head ....	24



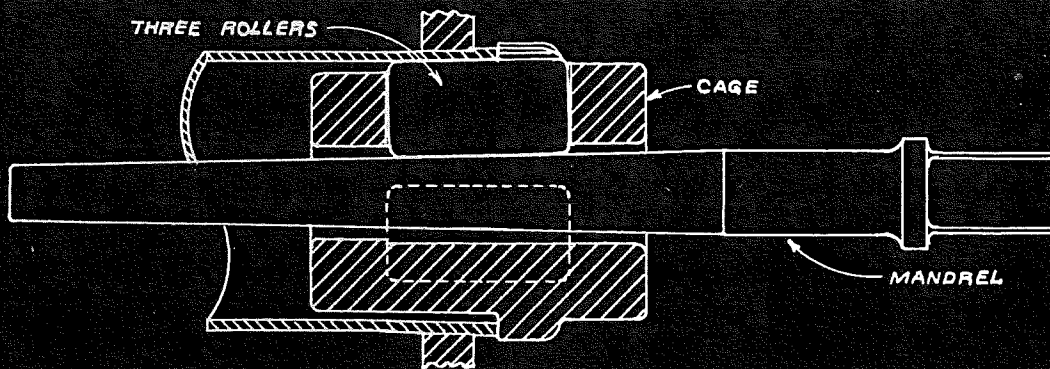


THE FAESSLER BOSS THREE-ROLLER TUBE EXPANDER



No. 10—For Hand Operation.

The Boss Roller Tube Expander is made up of the fewest possible parts. The rollers are double the necessary length, and reversible. All parts are machined from solid alloy bar stock, and properly heat treated.



No. 11—For Motor Drive.

This expander is of the same design as the No. 10, shown above, but is of the self-feeding type for motor drive.

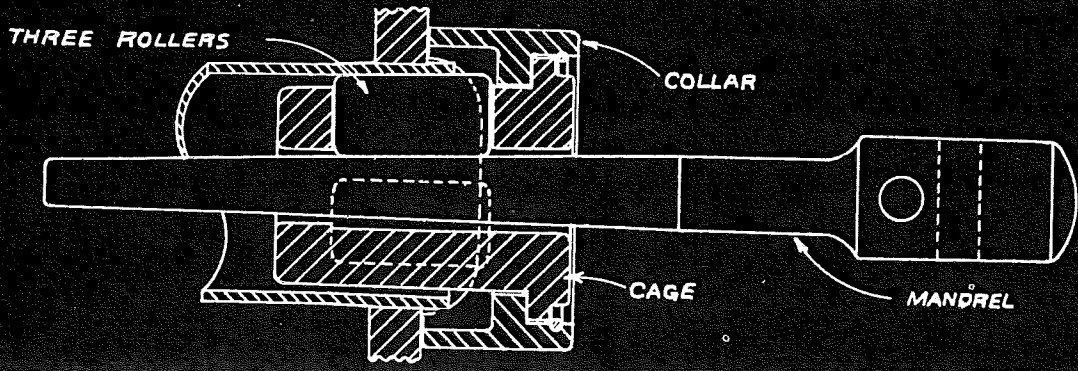
Price List of Expanders No. 10 and 11

If the expander number is not given, No. 11, for Motor Drive, will be furnished.

MARKED SIZE OF TOOL D. D. OF TUBE-INCHES	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	2 1/4	2 3/8	2 1/2	2 5/8	2 3/4	2 7/8	3	3 1/8	3 1/4	3 3/8	3 1/2	3 5/8	3 3/4	3 7/8	4	
ENTERS INSIDE DIA. OF TUBE-INCHES	13/16	29/32	1	1 1/8	1 9/32	1 3/8	1 1/2	1 21/32	1 3/4	1 7/8	1 11/32	2 1/16	2 5/32	2 5/16	2 7/16	2 9/16	2 11/16	2 13/16	2 15/16	3 1/16	3 3/16	3 5/16	3 15/32	3 17/32	3 21/32	
MAXIMUM EXPANSION INCHES	29/32	1	1 1/8	1 9/32	1 7/16	1 19/32	1 23/32	1 7/8	2	2 1/8	2 1/4	2 11/32	2 7/16	2 19/32	2 23/32	2 7/8	3	3 1/8	3 1/4	3 3/8	3 1/2	3 5/8	3 23/32	3 7/8	4	
WEIGHT-POUNDS	1	1	1 1/2	2 1/2	2 1/2	3	4	4	4	4 1/2	5	6	6	6 1/2	7	8	8	8	10	10	11	12	13	14	15	16
TOOL-COMplete	\$16.00	16.00	16.00	17.00	17.00	17.00	18.00	18.00	19.00	20.00	20.00	22.00	22.00	23.00	24.00	25.00	25.00	28.00	28.00	30.00	30.00	33.00	33.00	35.00	35.00	
ROLLERS-EACH	\$.40	.40	.40	.40	.40	.40	.40	.45	.45	.50	.50	.55	.55	.60	.75	.75	.75	.85	.85	.85	.85	.90	.90	.90	.90	
MANDREL	\$3.00	3.00	3.00	3.50	3.50	3.50	4.50	4.50	4.50	5.00	5.00	5.50	5.50	6.50	6.50	6.50	6.50	6.50	7.00	7.00	7.00	7.50	8.00	8.00	8.00	
MANDREL SQUARE FOR MOTOR DRIVE TOOL-INCHES	7/16	7/16	1/2	1/2	5/8	5/8	5/8	5/8	5/8	5/8	5/8	3/4	3/4	7/8	7/8	7/8	7/8	7/8	1	1	1	1	1 1/8	1 1/8	1 1/8	



THE FAESSLER UNIVERSAL THREE-ROLLER TUBE EXPANDER

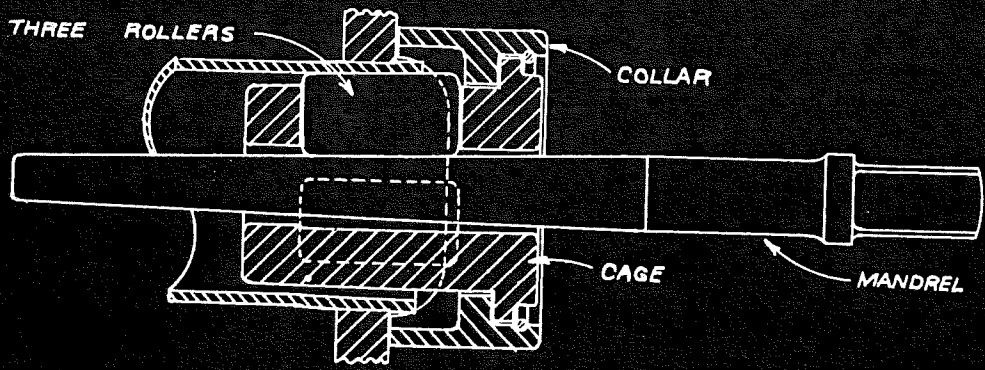


No. 12—For Hand Operation.

This type of expander is made with a removable collar which bears against the tube sheet instead of the tube end.

Where tubes are cut longer than necessary, and project beyond the sheet too far to permit the rollers to enter to roll the tube tight, the collar may be removed from the cage, permitting the expander to enter the tube the full length of the rollers.

All parts of this tool are made of solid alloy bar stock, and properly heat treated.



No. 13—For Motor Drive.

This tool is of the same design as the Number 12 expander, but is of the self-feeding type, for motor drive.

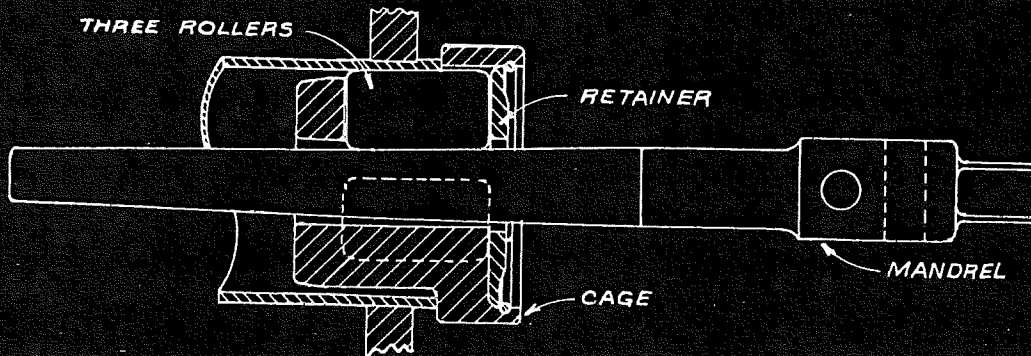
Price List of Expanders No. 12 and 13

If the expander number is not given, No. 13, for motor drive will be furnished.

MARKED SIZE OF TOOL D. D. OF TUBE—INCHES	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2	2 1/8	2 1/4	2 3/8	2 1/2	2 5/8	2 3/4	2 7/8	3	3 1/8	3 1/4	3 3/8	3 1/2	3 5/8	3 3/4	3 7/8	4				
ENTERS INSIDE DIA. OF TUBE—INCHES	15/16	29/32	1	1 1/8	1 1/16	1 1/8	1 1/8	1 1/8	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4				
MAXIMUM EXPANSION INCHES	29/32	1	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4				
WEIGHT—POUNDS	1	1	1 1/2	2	2 1/2	2 1/2	3	3	3	3	4	5	5	5 1/2	6	7	7	9	10	10	10	10	11	13	14	15			
TOOL—COMPLETE	\$16.00	16.00	16.00	17.00	17.00	17.00	18.00	18.00	19.00	20.00	20.00	22.00	22.00	23.00	24.00	25.00	25.00	28.00	28.00	30.00	30.00	33.00	33.00	35.00	35.00				
ROLLERS—EACH	\$.40	.40	.40	.40	.40	.40	.40	.45	.45	.50	.50	.55	.55	.60	.75	.75	.75	.85	.85	.85	.85	.90	.90	.90	.90				
MANDREL	\$3.00	3.00	3.00	3.50	3.50	3.50	4.50	4.50	4.50	5.00	5.00	5.50	5.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	7.00	7.00	7.00	7.50	8.00	8.00			
MANDREL SQUARE FOR MOTOR DRIVE TOOL—INCHES	7/16	7/16	1/2	1/2	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1	1	1	1	1 1/4	1 1/4	1 1/4



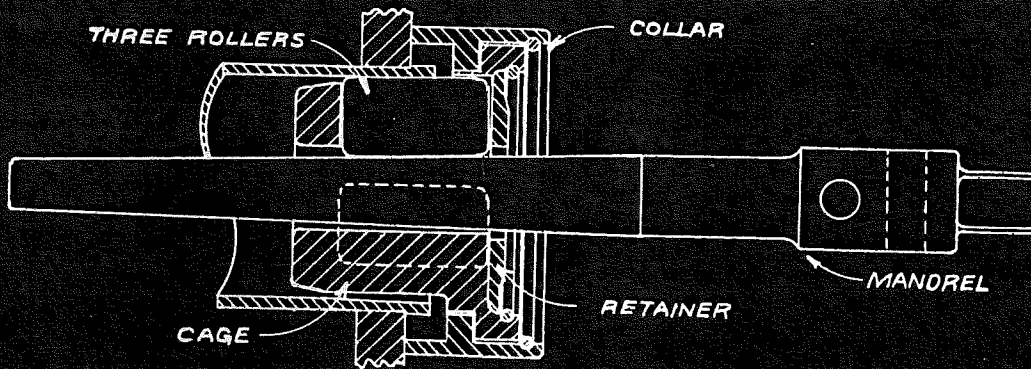
### THE FAESSLER SOLID-COLLAR THREE-ROLLER TUBE EXPANDER



#### No. 14—For Motor Drive.

This expander is self-feeding, of the solid collar type, and bears against the tube end. The cage is constructed so the rollers cannot fall in or out when the mandrel is removed. All parts are made of alloy steel, correctly heat treated.

### THE FAESSLER SPECIAL THREE-ROLLER TUBE EXPANDER



#### No. 15—For Motor Drive.

This expander is equipped with a loose collar which bears against the tube sheet, instead of the tube end, which minimizes friction. This expander is of the self-feeding type.

The rollers cannot fall in or out of the cage when the mandrel is removed. All parts are made of alloy steel, properly heat treated for maximum service.

#### Price List of Three Roller Expanders No. 14 and 15

MARKED SIZE OF TOOL O. D. OF TUBE—INCHES	1½	1⅝	1¾	1⅞	2	2⅛	2¼	2⅝	2⅞	2¾	2⅞	3	3⅛	3¼	3⅝	3½	3⅞	3¾	3⅞	4	
ENTERS INSIDE DIA. OF TUBE—INCHES	1¼	1⅝	1⅞	1⅞	1 <sup>25</sup> / <sub>32</sub>	1 <sup>27</sup> / <sub>32</sub>	1 <sup>31</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>32</sub>	2 <sup>7</sup> / <sub>32</sub>	2 <sup>11</sup> / <sub>32</sub>	2 <sup>15</sup> / <sub>32</sub>	2 <sup>19</sup> / <sub>32</sub>	2 <sup>23</sup> / <sub>32</sub>	2 <sup>27</sup> / <sub>32</sub>	2 <sup>15</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>
MAXIMUM EXPANSION INCHES	1½	1⅝	1¾	1⅞	2	2⅛	2¼	2⅝	2⅞	2¾	2⅞	3	3⅛	3¼	3⅝	3½	3⅞	3¾	3⅞	4	
WEIGHT—POUNDS	2½	2½	3½	4	4	4½	4½	5	6	7	8	9	9	10	10	11	11	12	12	13	14
TOOL—COMPLETE	\$17.00	17.00	18.00	18.00	19.00	20.00	20.00	22.00	22.00	23.00	24.00	25.00	25.00	28.00	28.00	30.00	30.00	33.00	33.00	35.00	35.00
ROLLERS—EACH	\$.40	.40	.40	.45	.45	.50	.50	.55	.55	.60	.75	.75	.75	.85	.85	.85	.85	.90	.90	.90	.90
MANDREL	\$4.00	4.00	4.00	5.00	5.00	5.00	5.00	6.50	6.50	6.50	6.50	6.50	6.50	6.50	7.00	7.00	7.50	7.50	8.00	8.00	8.00
SIZE OF MANDREL SQUARE—INCHES	½	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	1	1	1	1	1	1	1



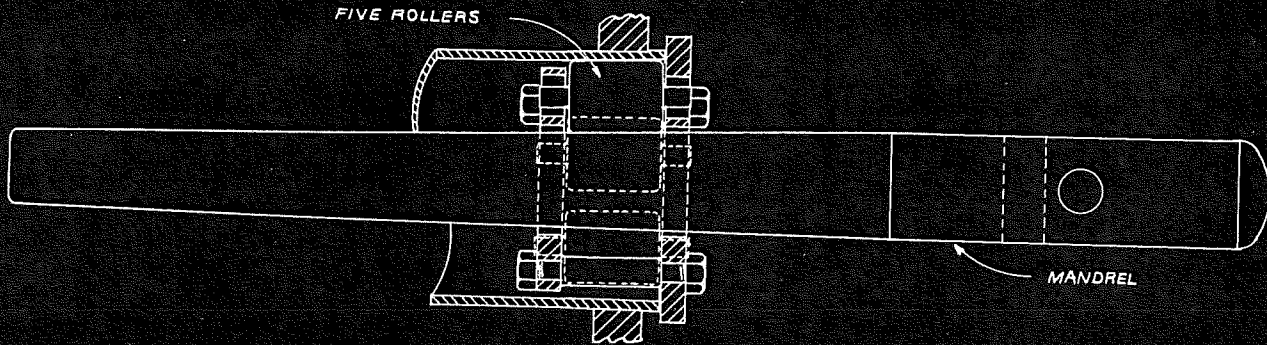








# STANDARD BUILT-UP-CAGE TYPE FIVE-ROLLER TUBE EXPANDER FOR LOCOMOTIVE SUPERHEATER TUBES



## No. 19—For Hand Operation Only.

This expander can be used for rolling both the front and back tube ends. Made of steel throughout.

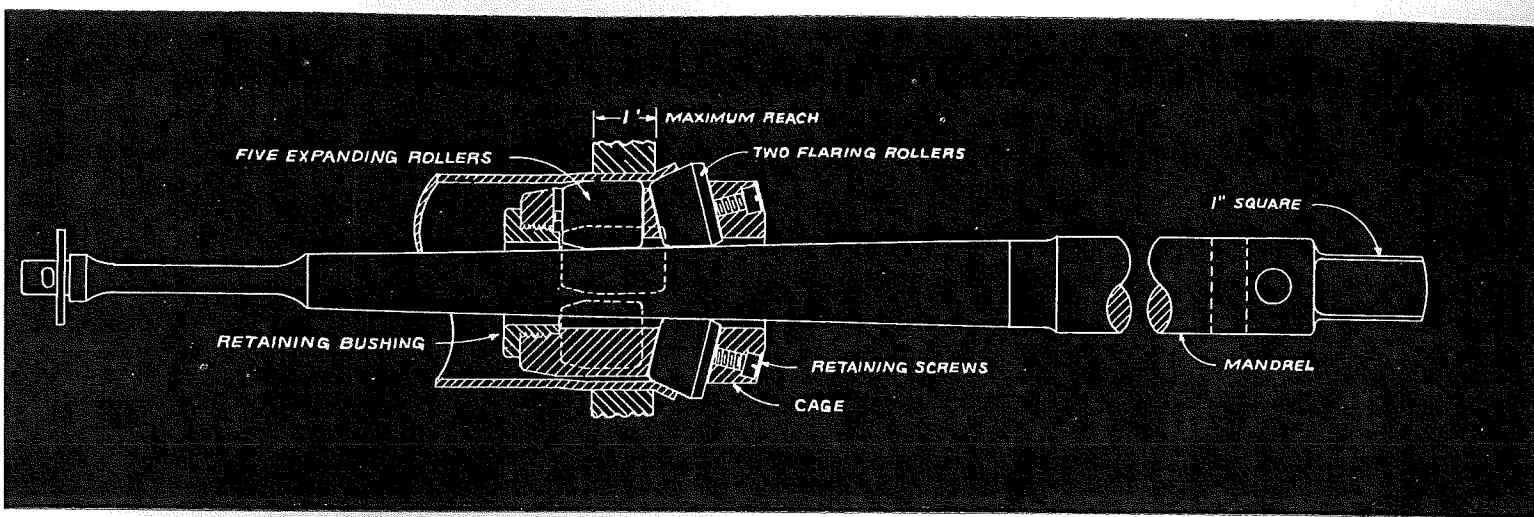
### Price List of Expander No. 19

MARKED SIZE OF TOOL O. D. OF TUBE — INCHES	4 $\frac{1}{8}$	4 $\frac{1}{4}$	4 $\frac{3}{8}$	4 $\frac{1}{2}$	4 $\frac{5}{8}$	4 $\frac{3}{4}$	4 $\frac{7}{8}$	5	5 $\frac{1}{8}$	5 $\frac{1}{4}$	5 $\frac{3}{8}$	5 $\frac{1}{2}$	5 $\frac{5}{8}$	5 $\frac{3}{4}$
ENTERS INSIDE DIA. OF TUBE — INCHES	3 $\frac{3}{16}$	3 $\frac{11}{16}$	3 $\frac{13}{16}$	3 $\frac{15}{16}$	4 $\frac{1}{16}$	4 $\frac{3}{16}$	4 $\frac{5}{16}$	4 $\frac{7}{16}$	4 $\frac{9}{16}$	4 $\frac{11}{16}$	4 $\frac{13}{16}$	4 $\frac{15}{16}$	5 $\frac{1}{16}$	5 $\frac{3}{16}$
MAXIMUM EXPANSION INCHES	4 $\frac{1}{16}$	4 $\frac{3}{16}$	4 $\frac{5}{16}$	4 $\frac{7}{16}$	4 $\frac{9}{16}$	4 $\frac{11}{16}$	4 $\frac{13}{16}$	4 $\frac{15}{16}$	5 $\frac{1}{16}$	5 $\frac{3}{16}$	5 $\frac{5}{16}$	5 $\frac{7}{16}$	5 $\frac{9}{16}$	5 $\frac{11}{16}$
WEIGHT — POUNDS	13	13	14	14	15	15	16	16	17	17	18	18	19	19
TOOL — COMPLETE	\$38.00	38.00	38.00	38.00	44.00	44.00	44.00	44.00	48.00	48.00	48.00	48.00	57.00	57.00
ROLLERS — EACH	\$ 1.25	1.25	1.25	1.25	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.80	1.80
MANDREL	\$10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	13.00	13.00	13.00	13.00	15.00	15.00





**THE FAESSLER No. 1936 SEVEN-ROLLER ARCH TUBE FLARING EXPANDER**



**Parallel Rolling Type**

This expander, which is self-feeding, rolls and flares the tube in one operation.

It is of the parallel rolling type; that is, the expanding rollers are suitably tapered to produce uniform expansion and tightness of tube throughout the full thickness of the tube sheet.

When the mandrel is drawn back in the cage to starting position, the flaring rollers collapse to permit the expander to pass through the size hand-hole as indicated for each tool.

The rollers cannot fall in or out of the cage when the mandrel is removed. This tool is made of alloy steel, with all parts heat treated.

**Price List of Expander No. 1936**

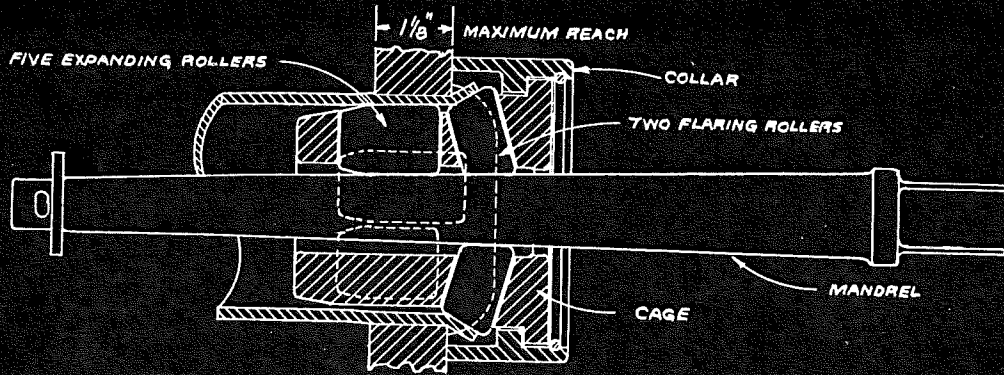
MARKED SIZE OF TOOL O.D. OF TUBE — INCHES	2½	2⅝	2¾	2⅞	3	3⅛	3¼	3⅜	3½	3⅝	3¾	3⅞	4
ENTERS INSIDE DIA. OF TUBE — INCHES	2⅛	2⅝	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞
MAXIMUM EXPANSION — INCHES	2⅞	2½	2⅝	2¾	2⅞	3	3⅛	3¼	3⅜	3½	3⅝	3¾	3⅞
ENTERS ROUND HAND- HOLE-DIAMETER-INCHES	2⅞	2½	2⅝	2¾	2⅞	3	3⅛	3⅛	3⅛	3¼	3⅜	3½	3⅝
WEIGHT — POUNDS	8	8	9	10	10	12	12	14	15	15	16	18	18
TOOL COMPLETE	\$ 58.00	58.00	58.00	58.00	59.00	60.00	61.00	62.00	63.00	64.00	65.00	66.00	67.00
ROLLERS — SET OF SEVEN PIECES	\$ 3.85	4.20	5.25	5.25	5.25	5.95	5.95	5.95	5.95	6.30	6.30	6.30	6.30
MANDREL	\$ 13.50	13.50	13.50	13.50	13.50	14.00	14.75	15.00	15.00	15.50	15.75	16.25	16.50



The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri



# THE FAESSLER NO. 2117 SEVEN-ROLLER FLARING TUBE EXPANDER



## Large Sizes Suitable For Locomotive Superheater Tubes

This expander, which is self-feeding, rolls and flares the tube in one operation.

The collar bears against the tube sheet, and may be easily removed if it is desired to use the expander without the collar.

This type expander is made in a complete range of sizes, and is widely used. Made of alloy bar steel, with all parts carefully heat treated.

### Price List of Expander No. 2117

MARKED SIZE OF TOOL O.D. OF TUBE—INCHES	1½	1⅝	1¾	1⅞	2	2⅛	2¼	2⅜	2½	2⅝	2¾	2⅞	3	3⅛	3¼	3⅜	3½
ENTERS INSIDE DIA. OF TUBE—INCHES	1¼	1⅞	1⅝	1⅞	1⅞	1⅞	1⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞	2⅞
MAXIMUM EXPANSION INCHES	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞
WEIGHT—POUNDS	2	3	3½	4	4½	4½	5	5½	6	7	8	8½	9½	10½	11½	12	13
TOOL COMPLETE	\$32.00	32.00	32.00	32.00	32.00	34.00	34.00	36.00	36.00	38.00	38.00	40.00	40.00	42.00	42.00	44.00	44.00
ROLLERS—SET OF SEVEN PIECES	\$2.80	2.80	2.80	3.15	3.15	3.50	3.50	3.85	3.85	4.20	5.25	5.25	5.25	5.95	5.95	5.95	5.95
MANDREL	\$3.50	3.50	4.50	4.50	4.50	5.00	5.00	5.50	6.50	6.50	7.00	7.00	7.00	7.00	7.00	7.50	7.50
SIZE OF MANDREL SQUARE—INCHES	¾	¾	¾	¾	¾	¾	¾	¾	1	1	1	1	1	1	1	1	1

MARKED SIZE OF TOOL O.D. OF TUBE—INCHES	3⅝	3¾	3⅞	4	4⅛	4¼	4⅜	4½	4⅝	4¾	4⅞	5	5⅛	5¼	5⅜	5½	5⅝
ENTERS INSIDE DIA. OF TUBE—INCHES	3¼	3⅞	3½	3⅞	3¾	3⅞	4	4⅞	4⅞	4⅞	4⅞	4⅞	4⅞	4⅞	4⅞	4⅞	4⅞
MAXIMUM EXPANSION INCHES	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞	3⅞
WEIGHT—POUNDS	13½	14	16	18	19	20	22	23	24	25	26	28	30	32	33	35	37
TOOL COMPLETE	\$46.00	46.00	48.00	48.00	50.00	50.00	54.00	54.00	58.00	58.00	62.00	62.00	66.00	66.00	70.00	70.00	74.00
ROLLERS—SET OF SEVEN PIECES	\$6.30	6.30	6.30	6.30	6.65	6.65	6.65	6.65	7.00	7.00	7.00	7.35	7.35	7.35	7.70	7.70	7.70
MANDREL	\$7.50	8.00	8.00	10.00	10.00	10.00	12.00	14.00	14.00	14.00	18.00	18.00	18.00	20.00	20.00	20.00	22.00
SIZE OF MANDREL SQUARE—INCHES	1	1	1	1	1	1	1	1	1	1	1½	1½	1½	1½	1½	1½	1½



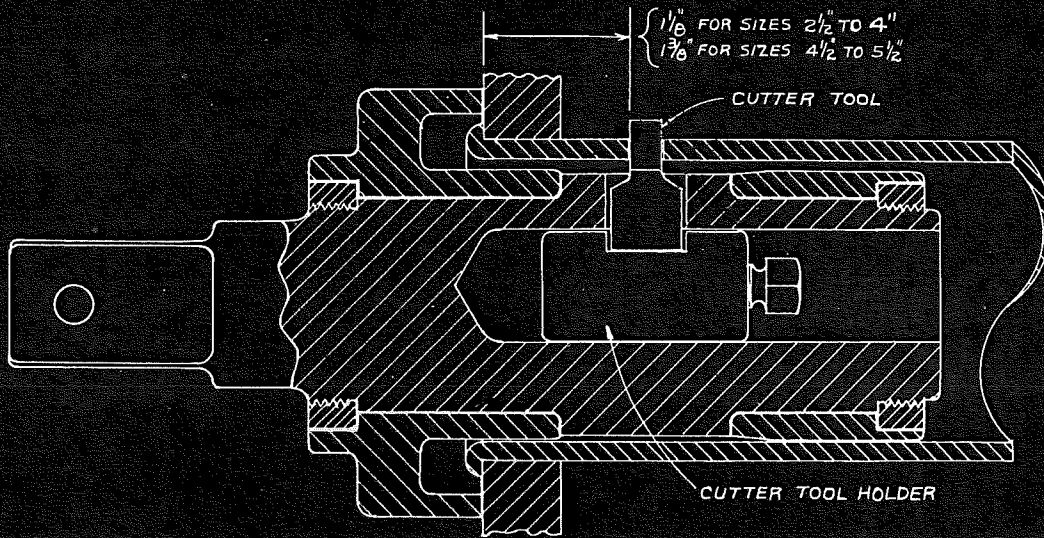




The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri



## THE FAESSLER PERFECT TUBE CUTTER FOR 2½" AND LARGER TUBES



The cutter tool in this tube cutter is carried in a tool holder set off-center of the cutter body.

The tube cutter is placed in the tube and turned clock-wise about one-third of a revolution, which causes the cutter tool to automatically pierce the tube wall. Then one complete revolution of the tube cutter cuts the tube. Removal of the whole cutter from the tube is effected by reversing for about one-third of a revolution, and withdrawing.

This tool is made with loose sleeves on each end of the body. This construction permits the entire tool to roll in the tube, thereby minimizing friction.

Made of special alloy steel, correctly heat treated to withstand the severe service required of this type tool.

Each tube cutter is furnished with a socket wrench for changing the cutter tool.

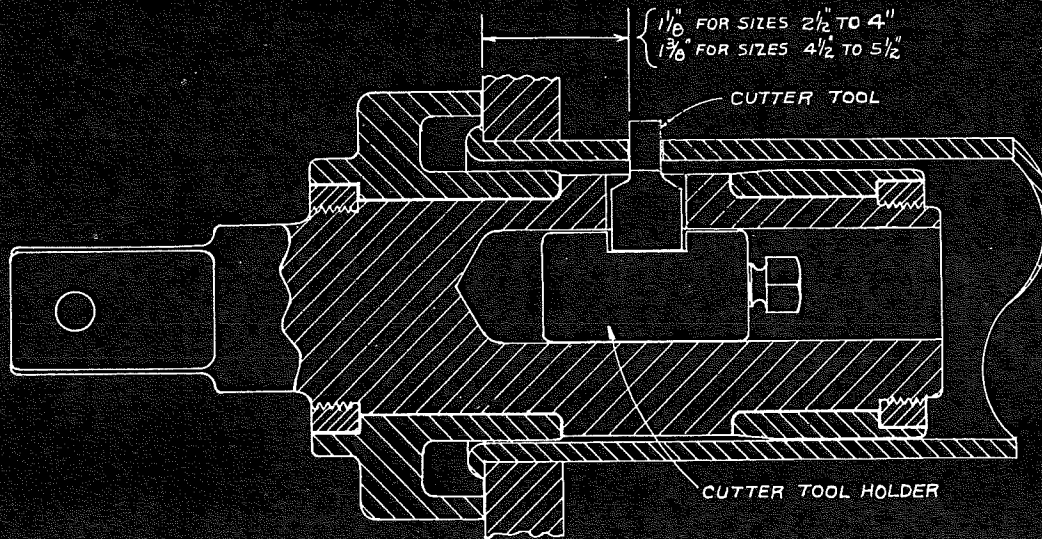
### Price List of Perfect Tube Cutter for 2½" and Larger Tubes

MARKED SIZE OF TOOL O. D. OF TUBE—INCHES	2½	3	3¼	3½	4	4½	5⅜	5½
WEIGHT—POUNDS	8	9	10	12	14	20	27	27
CUTTER COMPLETE	\$75.00	80.00	85.00	90.00	100.00	125.00	150.00	150.00
CUTTER TOOLS— PER DOZEN	\$ 6.00	6.00	8.00	8.00	8.00	12.00	12.00	12.00
CUTTER TOOL HOLDER—EACH	\$ 1.50	2.00	2.30	2.30	2.30	2.85	4.00	4.00



The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri

## THE FAESSLER PERFECT TUBE CUTTER FOR 2½" AND LARGER TUBES



The cutter tool in this tube cutter is carried in a tool holder set off-center of the cutter body.

The tube cutter is placed in the tube and turned clock-wise about one-third of a revolution, which causes the cutter tool to automatically pierce the tube wall. Then one complete revolution of the tube cutter cuts the tube. Removal of the whole cutter from the tube is effected by reversing for about one-third of a revolution, and withdrawing.

This tool is made with loose sleeves on each end of the body. This construction permits the entire tool to roll in the tube, thereby minimizing friction.

Made of special alloy steel, correctly heat treated to withstand the severe service required of this type tool.

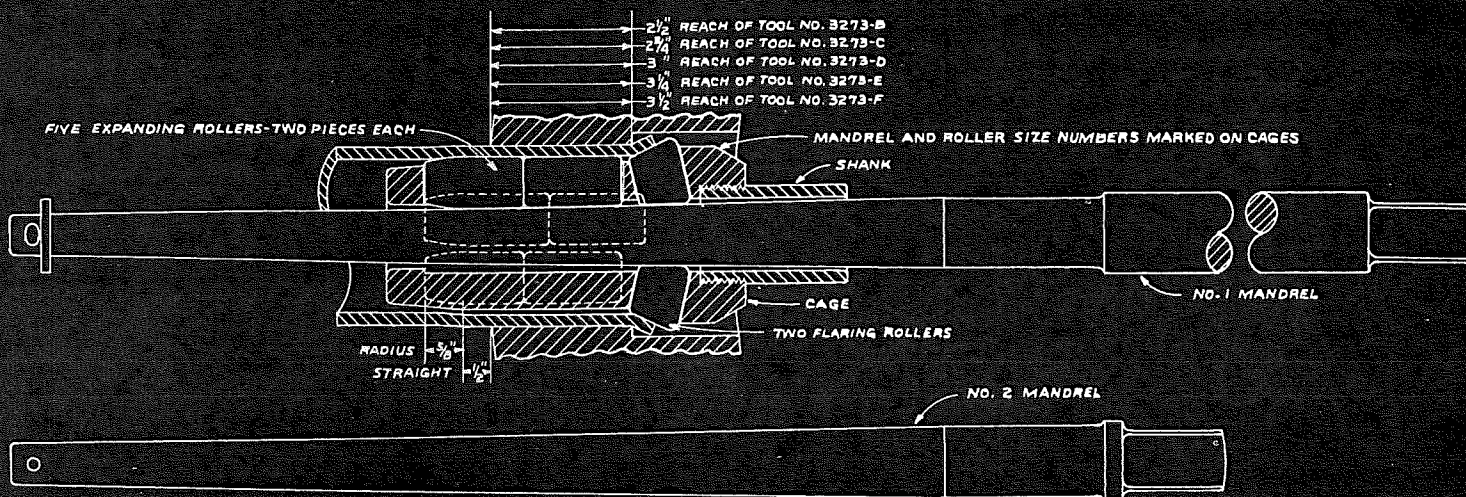
Each tube cutter is furnished with a socket wrench for changing the cutter tool.

### Price List of Perfect Tube Cutter for 2½" and Larger Tubes

MARKED SIZE OF TOOL O. D. OF TUBE—INCHES	2½	3	3¼	3½	4	4½	5¼	5½
WEIGHT—POUNDS	8	9	10	12	14	20	27	27
CUTTER COMPLETE	\$75.00	80.00	85.00	90.00	100.00	125.00	150.00	150.00
CUTTER TOOLS— PER DOZEN	\$ 6.00	6.00	8.00	8.00	8.00	12.00	12.00	12.00
CUTTER TOOL HOLDER—EACH	\$ 1.50	2.00	2.30	2.30	2.30	2.85	4.00	4.00



## THE FAESSLER No. 3273 ROLLING AND FLARING TUBE EXPANDER FOR TUBES IN THICK SHEETS



### Parallel Rolling Type

The Faessler No. 3273 series expander is designed for use in drum rolling, or other installations, where the tube sheet is 2 1/2" or more in thickness. This tool is of the self-feeding, parallel rolling type; that is, the expanding rollers are suitably tapered to produce uniform expansion and tightness of the tube throughout the full thickness of the tube sheet. This parallel rolling feature is very necessary in obtaining a tight joint in thick tube sheets.

Another distinctive feature is the long, easy radius on the lead end of the expanding rollers, which avoids any abrupt shoulder in the tube.

The multiple expanding roller construction of this tool makes it superior to an expander with solid, or one-piece expanding rollers, for rolling tubes in very thick tube sheets. The knurled grip shank projecting from the cage provides a means of easy handling of the tool when used in inside counterbored drums.

This tool is constructed entirely of alloy bar steel, properly heat treated.

For tube sizes for which these tools are suitable, and other data, see page 18.

### Price List of Expanders No. 3273

MARKED SIZE OF TOOL		INCHES	2 1/2"	2 11/16"	2 3/4"	2 13/16"	2 7/8"	2 15/16"	3	3 1/8"	3 1/4"	3 3/8"	3 1/2"	3 5/8"	3 3/4"	3 7/8"	3 15/16"	4			
TOOL COMPLETE WITH NUMBER 1 MANDREL	2 1/2 REACH-TOOL NO. 3273-B	\$80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00		
	2 3/4 REACH-TOOL NO. 3273-C	\$85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00		
	3 REACH-TOOL NO. 3273-D	\$90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00		
	3 1/4 REACH-TOOL NO. 3273-E	\$95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00		
	3 1/2 REACH-TOOL NO. 3273-F	\$100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
NUMBER 1 MANDREL	ALL REACHES	\$15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00		
NUMBER 2 MANDREL	ALL REACHES	\$ 9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00		
MANDREL MARKING AND HEAD SIZE	SIZE NUMBER		14	14	14	14	14	16	16	18	18	18	22	20	22	22	24	22	26	26	
	SIZE OF SQUARE HEAD INCHES		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
ROLLERS-SET	2 1/2 REACH-TOOL NO. 3273-B	\$16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50		
	2 3/4 REACH-TOOL NO. 3273-C	\$17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50		
	3 REACH-TOOL NO. 3273-D	\$19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50		
	3 1/4 REACH-TOOL NO. 3273-E	\$21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50		
	3 1/2 REACH-TOOL NO. 3273-F	\$23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50		
ROLLER MARKING	SIZE NUMBER		30	32	34	36	38	38	40	42	44	46	46	50	50	54	54	58	58	62	62



## THE FAESSLER No. 3273 ROLLING AND FLARING TUBE EXPANDER FOR TUBES IN THICK SHEETS

See page 17 for Price List, complete description, and range of sizes of this series of expanders.

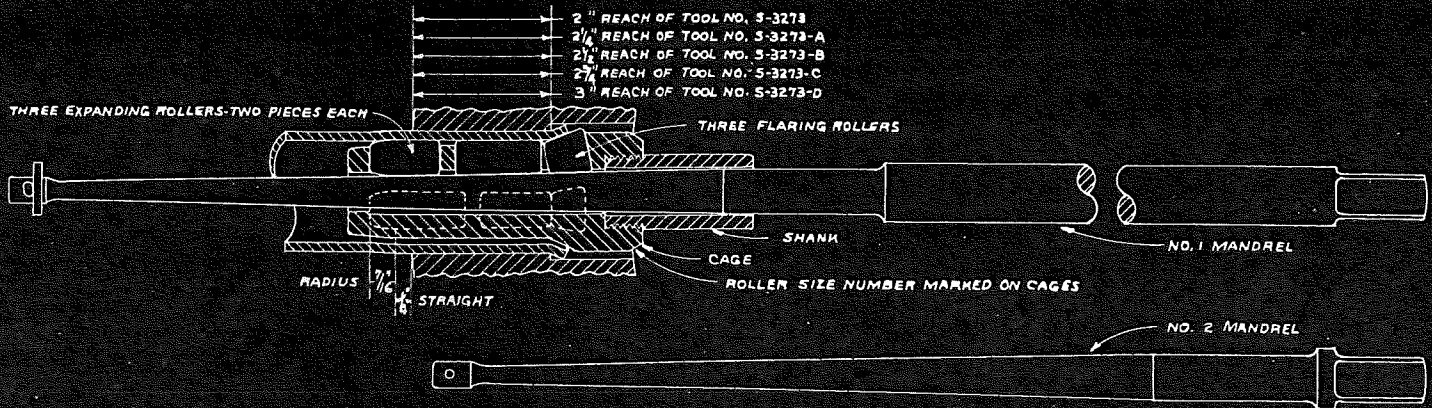
The following chart gives the inside diameters entered, maximum expansion, weight, and sizes of tubes for which these tools are suitable.

MARKED SIZE OF TOOL INCHES	ENTERS INSIDE DIA. OF TUBE INCHES	MAXIMUM EXPANSION INCHES	WEIGHT WITH NUMBER 1 MANDREL POUNDS	SIZE AND WALL THICKNESS OF TUBES FOR WHICH TOOLS ARE SUITABLE						
				2¾" O. D. TUBE BWG. WALL	3" O. D. TUBE BWG. WALL	3¼" O. D. TUBE BWG. WALL	3½" O. D. TUBE BWG. WALL	3¾" O. D. TUBE BWG. WALL	4" O. D. TUBE BWG. WALL	4½" O. D. TUBE BWG. WALL
2 5/8	2 5/32	2 15/32	14	4,5,6	0,1	000				
2 11/16	2 7/32	2 17/32	14	6,7	1,2					
2 3/4	2 9/32	2 19/32	14 1/2	7,8,9	2,3	00				
2 13/16	2 11/32	2 21/32	15	9,10,11	3,4	0				
2 7/8	2 13/32	2 23/32	15	10,11,12	4,5,6	0	000			
2 15/16	2 15/32	2 25/32	16		6,7,8	1				
3	2 17/32	2 27/32	16 1/2		7,8,9	2,3	00			
3 1/8	2 21/32	2 31/32	18		10,11,12	4,5,6	0	000		
3 3/16	2 23/32	3 1/32	18 1/2			6,7,8	1			
3 1/4	2 25/32	3 3/32	18 1/2			7,8,9	2,3	00		
3 3/8	2 29/32	3 7/32	21			10,11,12	4,5,6	0	000	
3 7/16	2 31/32	3 9/32	21				6,7,8	1		
3 1/2	3 1/32	3 11/32	23				7,8,9	2,3	00	
3 5/8	3 5/32	3 15/32	23 1/2				10,11,12	4,5,6	0	
3 11/16	3 7/32	3 17/32	24 1/2					6,7,8	1	
3 3/4	3 9/32	3 19/32	25					7,8,9	2,3	
3 7/8	3 13/32	3 23/32	27 1/2					10,11,12	4,5,6	000
3 15/16	3 15/32	3 25/32	28 1/2						6,7,8	
4	3 17/32	3 27/32	29 1/2						7,8,9	00





## THE FAESSLER No. S-3273 ROLLING AND FLARING TUBE EXPANDER FOR SMALL TUBES IN THICK SHEETS



### Parallel Rolling Type

The Faessler No. S-3273 series of expanders are of the self-feeding, multiple expanding roller type. The strongest possible construction of the cage of these small, long reach expanders is obtained by the expanding rollers being made up of short lengths, separated in their slots by solid bridges across the slots.

They are also of the parallel rolling type of construction; that is, the expanding rollers are suitably tapered to produce uniform expansion and tightness of the tube throughout the full thickness of the tube sheet.

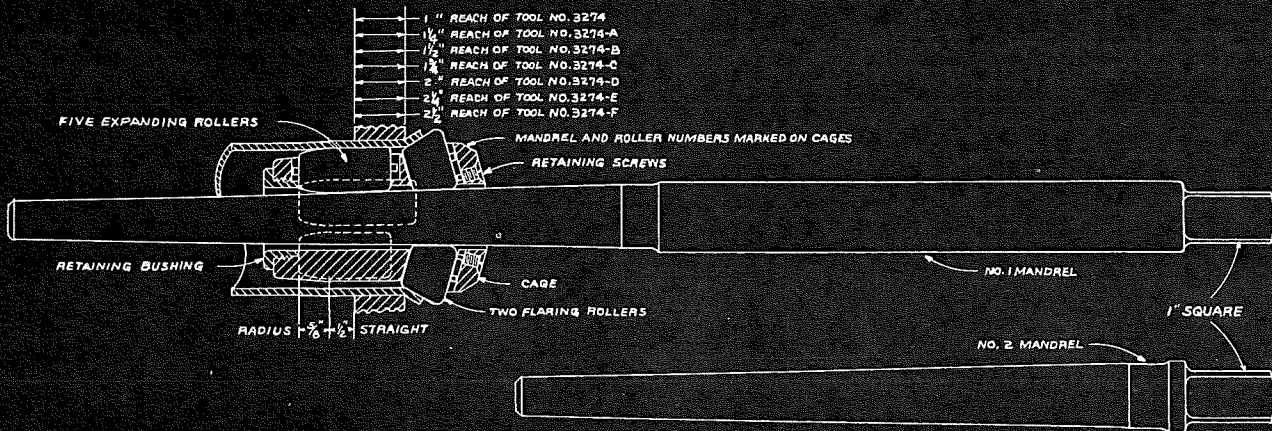
These tools are constructed of alloy bar steel, and each part carefully heat treated.

### Price List of Expanders No. S-3273

MARKED SIZE OF TOOL	—INCHES	1 3/4	1 13/16	1 7/8	1 15/16	2	2 1/16	2 1/8	2 3/16	2 1/4
ENTERS INSIDE DIAMETER TUBE	—INCHES	1 1/16	1 1/2	1 9/16	1 5/8	1 11/16	1 3/4	1 13/16	1 7/8	1 15/16
MAXIMUM EXPANSION	—INCHES	1 11/16	1 3/4	1 13/16	1 7/8	1 15/16	2	2 1/16	2 1/8	2 3/16
WEIGHT WITH NO. 1 MANDREL	—POUNDS	8	8	9	9	9	9	9	9	10
SIZE OF TUBES FOR WHICH TOOLS ARE SUITABLE	2" OUTSIDE DIAMETER TUBE—BWG. WALL	5,6	6,7,8	7,8,9	9,10,11	11,12				
	2 1/4" OUTSIDE DIAMETER TUBE—BWG. WALL				3,4	5,6	7,8	8,9,10	9,10,11,12	11,12
TOOL COMPLETE WITH NUMBER 1 MANDREL	2" REACH TOOL NO. S-3273	\$70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00
	2 1/4" REACH TOOL NO. S-3273-A	\$75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00
	2 1/2" REACH TOOL NO. S-3273-B	\$80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00
	2 3/4" REACH TOOL NO. S-3273-C	\$85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00
	3" REACH TOOL NO. S-3273-D	\$90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NO. 1 MANDREL	ALL REACHES	\$15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
NO. 2 MANDREL	ALL REACHES	\$ 9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
SIZE OF SQUARE HEAD	—INCHES	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
ROLLERS SET	2" REACH TOOL NO. S-3273	\$13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10
	2 1/4" REACH TOOL NO. S-3273-A	\$15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50
	2 1/2" REACH TOOL NO. S-3273-B	\$16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
	2 3/4" REACH TOOL NO. S-3273-C	\$17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50
	3" REACH TOOL NO. S-3273-D	\$19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
ROLLER MARKING	SIZE NUMBER	13	15	17	19	21	23	25	27	29



## THE FAESSLER No. 3274 ROLLING AND FLARING TUBE EXPANDER



### Parallel Rolling Type

Our No. 3274 Series expanders is a comprehensive line of tools embracing twenty-five sizes and seven different reaches, for rolling  $2\frac{1}{4}$ " to  $4\frac{1}{2}$ " tubes in tube sheets from  $\frac{1}{2}$ " to  $2\frac{1}{2}$ " in thickness. This expander is of the self-feeding type, and rolls and flares in one operation. It is also parallel rolling; that is, the expanding rollers are suitably tapered to produce uniform expansion and tightness of the tube throughout the full thickness of the tube sheet. This parallel rolling feature is very necessary in obtaining a tight joint in thick tube sheets.

Another distinctive feature is the long, easy radius on the lead end of the expanding rollers, which avoids any abrupt shoulder in the tube. The rollers cannot fall in or out of the cage when the mandrel is removed.

These tools are made of alloy bar steel throughout, with every part correctly heat treated.

On the following pages we submit price lists, and full specification data covering this line of tools, short mandrels for angle rolling, reverse rolling mandrels, universal joint drive heads, drive shafts, drive heads, adapter sleeves, gear drive, reversible ratchet wrench, etc. In addition, we show a number of typical applications of this expander and allied tube rolling equipment.



The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri



Price List of Expanders No. 3274

MARKED SIZE OF TOOL		INCHES	2 <sup>5</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>16</sub>	3	3 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>
TOOL COMPLETE WITH NUMBER 1 MANDREL	REACH 1 1 <sup>1</sup> / <sub>4</sub> TOOL NO. 3274 3274-A	\$	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00
	REACH 1 <sup>1</sup> / <sub>2</sub> 1 <sup>3</sup> / <sub>4</sub> 2 TOOL NO. 3274-B 3274-C 3274-D	\$	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00
	REACH 2 <sup>1</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>2</sub> TOOL NO. 3274-E 3274-F	\$	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00
NUMBER 1 MANDREL	ALL REACHES	\$	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
NUMBER 2 MANDREL	ALL REACHES	\$	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
MANDREL MARKING	SIZE NUMBER		9	9	9	9	11	11	13	13	13	15	15	17	17
ROLLERS-SET	REACH 1 1 <sup>1</sup> / <sub>4</sub> TOOL NO. 3274 3274-A	\$	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
	REACH 1 <sup>1</sup> / <sub>2</sub> 1 <sup>3</sup> / <sub>4</sub> TOOL NO. 3274-B 3274-C	\$	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
	REACH 2 TOOL NO. 3274-D	\$	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10
	REACH 2 <sup>1</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>2</sub> TOOL NO. 3274-E 3274-F	\$	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
ROLLER MARKING	SIZE NUMBER		23	25	27	29	29	31	33	35	37	37	39	41	43

MARKED SIZE OF TOOL		INCHES	3 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub>	3 <sup>11</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>8</sub>	3 <sup>15</sup> / <sub>16</sub>	4	4 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>
TOOL COMPLETE WITH NUMBER 1 MANDREL	REACH 1 1 <sup>1</sup> / <sub>4</sub> TOOL NO. 3274 3274-A	\$	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	71.00	71.00
	REACH 1 <sup>1</sup> / <sub>2</sub> 1 <sup>3</sup> / <sub>4</sub> 2 TOOL NO. 3274-B 3274-C 3274-D	\$	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	74.00	74.00
	REACH 2 <sup>1</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>2</sub> TOOL NO. 3274-E 3274-F	\$	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	79.00	79.00
NUMBER 1 MANDREL	ALL REACHES	\$	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50
NUMBER 2 MANDREL	ALL REACHES	\$	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	10.50	10.50
MANDREL MARKING	SIZE NUMBER		17	21	19	21	21	23	21	25	23	25	25	27
ROLLERS-SET	REACH 1 1 <sup>1</sup> / <sub>4</sub> TOOL NO. 3274 3274-A		11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	13.00	13.00
	REACH 1 <sup>1</sup> / <sub>2</sub> 1 <sup>3</sup> / <sub>4</sub> TOOL NO. 3274-B 3274-C		12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	13.60	13.60
	REACH 2 TOOL NO. 3274-D		13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	14.50	14.50
	REACH 2 <sup>1</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>2</sub> TOOL NO. 3274-E 3274-F		15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50
ROLLER MARKING	SIZE NUMBER		45	45	49	49	53	53	57	57	61	61	69	71



## THE FAESSLER No. 3274 ROLLING AND FLARING TUBE EXPANDER

See pages 20 and 21 for Price List, complete description and range of sizes of this series of expanders.

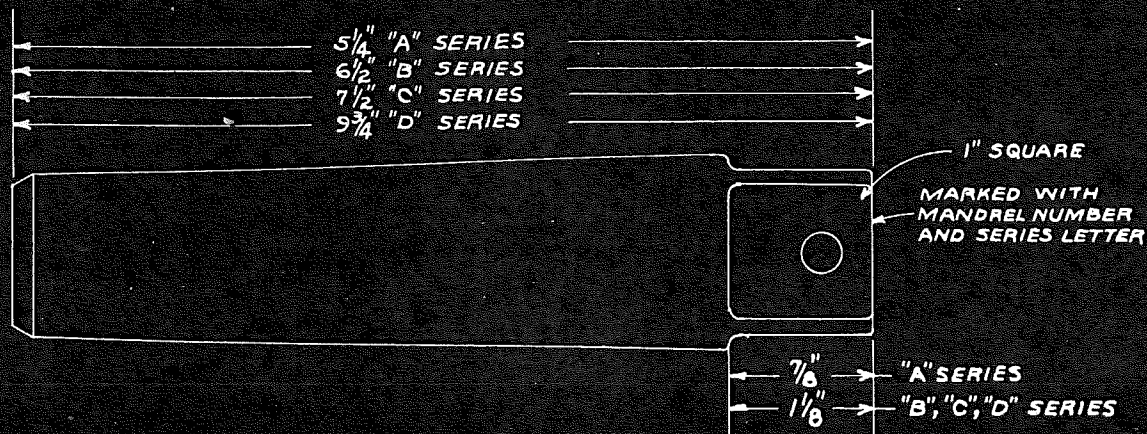
The following Charts give the inside diameters entered, maximum expansion, size of hand-hole entered, weight, and sizes of tubes for which these tools are suitable.

MARKED SIZE OF TOOL INCHES	ENTERS INSIDE DIA. OF TUBE INCHES	MAXIMUM EXPANSION INCHES	WEIGHT WITH NUMBER 1 MANDREL POUNDS	ENTERS ROUND HAND-HOLE DIA. INCHES	ENTERS OVAL HAND-HOLE SIZE INCHES	SIZE AND WALL THICKNESS OF TUBES FOR WHICH TOOLS ARE SUITABLE					
						2¼ O. D. TUBE BWG. WALL	2½ O. D. TUBE BWG. WALL	2¾ O. D. TUBE BWG. WALL	3 O. D. TUBE BWG. WALL	3¼ O. D. TUBE BWG. WALL	3½ O. D. TUBE BWG. WALL
2 <sup>5</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	8	2 <sup>1</sup> / <sub>2</sub>		9,10,11,12	4	0			
2 <sup>3</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	8	2 <sup>1</sup> / <sub>2</sub>		11,12,13	5,6				
2 <sup>7</sup> / <sub>16</sub>	2	2 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	2 <sup>9</sup> / <sub>16</sub>			6,7	1			
2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>	2 <sup>9</sup> / <sub>16</sub>			8,9	3			
2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>2</sub>	10	2 <sup>1</sup> / <sub>16</sub>			10,11,12	4,5,6,7	0,1	000	
2 <sup>11</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>32</sub>	2 <sup>9</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>			12	6,7,8,9	1,2		
2 <sup>3</sup> / <sub>4</sub>	2 <sup>9</sup> / <sub>32</sub>	2 <sup>21</sup> / <sub>32</sub>	11	2 <sup>13</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub> X 3 <sup>3</sup> / <sub>8</sub>			7,8,9,10,11	2,3,4	00	
2 <sup>13</sup> / <sub>16</sub>	2 <sup>11</sup> / <sub>32</sub>	2 <sup>23</sup> / <sub>32</sub>	11 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub> X 3 <sup>3</sup> / <sub>8</sub>			9,10,11,12	3,4,5,6	0	
2 <sup>7</sup> / <sub>8</sub>	2 <sup>13</sup> / <sub>32</sub>	2 <sup>25</sup> / <sub>32</sub>	12	2 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub> X 3 <sup>3</sup> / <sub>8</sub>			10,11,12	4,5,6,7,8	0,1	000
2 <sup>15</sup> / <sub>16</sub>	2 <sup>15</sup> / <sub>32</sub>	2 <sup>27</sup> / <sub>32</sub>	12 <sup>1</sup> / <sub>2</sub>	2 <sup>15</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub> X 3 <sup>3</sup> / <sub>8</sub>				6,7,8,9	1,2	
3	2 <sup>17</sup> / <sub>32</sub>	2 <sup>29</sup> / <sub>32</sub>	12 <sup>1</sup> / <sub>2</sub>	3	2 <sup>3</sup> / <sub>4</sub> X 3 <sup>3</sup> / <sub>8</sub>				7,8,9,10,11	2,3,4	00
3 <sup>1</sup> / <sub>8</sub>	2 <sup>21</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>32</sub>	14 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub> X 3 <sup>3</sup> / <sub>8</sub>				10,11,12	4,5,6,7	0,1

MARKED SIZE OF TOOL INCHES	ENTERS INSIDE DIA. OF TUBE INCHES	MAXIMUM EXPANSION INCHES	WEIGHT WITH NUMBER 1 MANDREL POUNDS	ENTERS ROUND HAND-HOLE DIA. INCHES	ENTERS OVAL HAND-HOLE SIZE INCHES	SIZE AND WALL THICKNESS OF TUBES FOR WHICH TOOLS ARE SUITABLE					
						3¼ O. D. TUBE BWG. WALL	3½ O. D. TUBE BWG. WALL	3¾ O. D. TUBE BWG. WALL	4 O. D. TUBE BWG. WALL	4¼ O. D. TUBE BWG. WALL	4½ O. D. TUBE BWG. WALL
3 <sup>1</sup> / <sub>16</sub>	2 <sup>23</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>32</sub>	14 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub> X 3 <sup>3</sup> / <sub>8</sub>	6,7,8,9	1,2				
3 <sup>1</sup> / <sub>4</sub>	2 <sup>25</sup> / <sub>32</sub>	3 <sup>5</sup> / <sub>32</sub>	15	3 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub> X 3 <sup>3</sup> / <sub>8</sub>	7,8,9,10,11	2,3,4	00			
3 <sup>3</sup> / <sub>8</sub>	2 <sup>29</sup> / <sub>32</sub>	3 <sup>9</sup> / <sub>32</sub>	17	3 <sup>1</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>8</sub> X 3 <sup>1</sup> / <sub>2</sub>	10,11,12	4,5,6,7	0,1	000		
3 <sup>7</sup> / <sub>16</sub>	2 <sup>31</sup> / <sub>32</sub>	3 <sup>11</sup> / <sub>32</sub>	18	3 <sup>1</sup> / <sub>4</sub>	2 <sup>15</sup> / <sub>16</sub> X 3 <sup>9</sup> / <sub>16</sub>		6,7,8,9	1,2			
3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>32</sub>	3 <sup>13</sup> / <sub>32</sub>	18	3 <sup>5</sup> / <sub>16</sub>	3 X 3 <sup>5</sup> / <sub>8</sub>		7,8,9,10,11	2,3,4	00		
3 <sup>5</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>32</sub>	18	3 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub> X 3 <sup>3</sup> / <sub>4</sub>		10,11,12	4,5,6,7	0,1	000	
3 <sup>11</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>32</sub>	3 <sup>19</sup> / <sub>32</sub>	19	3 <sup>7</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub> X 3 <sup>3</sup> / <sub>4</sub>		12	6,7,8,9	1,2	00	
3 <sup>3</sup> / <sub>4</sub>	3 <sup>9</sup> / <sub>32</sub>	3 <sup>21</sup> / <sub>32</sub>	19	3 <sup>7</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub> X 3 <sup>13</sup> / <sub>16</sub>			7,8,9,10,11	2,3,4	0	
3 <sup>7</sup> / <sub>8</sub>	3 <sup>13</sup> / <sub>32</sub>	3 <sup>25</sup> / <sub>32</sub>	21	3 <sup>5</sup> / <sub>8</sub>	3 <sup>11</sup> / <sub>32</sub> X 3 <sup>31</sup> / <sub>32</sub>			10,11,12	5,6,7	1	000
3 <sup>15</sup> / <sub>16</sub>	3 <sup>15</sup> / <sub>32</sub>	3 <sup>27</sup> / <sub>32</sub>	21	3 <sup>5</sup> / <sub>8</sub>	3 <sup>11</sup> / <sub>32</sub> X 3 <sup>31</sup> / <sub>32</sub>			12	6,7,8,9	1,2	
4	3 <sup>17</sup> / <sub>32</sub>	3 <sup>29</sup> / <sub>32</sub>	22	3 <sup>5</sup> / <sub>8</sub>	3 <sup>11</sup> / <sub>32</sub> X 3 <sup>31</sup> / <sub>32</sub>				7,8,9,10,11	2,3,4	00
4 <sup>1</sup> / <sub>4</sub>	3 <sup>25</sup> / <sub>32</sub>	4 <sup>5</sup> / <sub>32</sub>	27	3 <sup>7</sup> / <sub>8</sub>	3 <sup>23</sup> / <sub>32</sub> X 4 <sup>11</sup> / <sub>32</sub>				6,7,8,9,10	2,3	
4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>32</sub>	4 <sup>13</sup> / <sub>32</sub>	30	4	3 <sup>15</sup> / <sub>16</sub> X 4 <sup>9</sup> / <sub>16</sub>						6,7,8,9,10



## "A" "B" "C" AND "D" SERIES SHORT MANDRELS FOR ANGLE ROLLING



These series of short mandrels were designed for use in No. 3274 expanders for angle rolling in round and square headers, and other places where space is limited.

Very difficult tube installations can be handled with these mandrels, used in connection with our No. 3682 Universal Joint Drive Head, No. 3733 Ratchet Wrench, No. 3760-6 Gear Drive, and other Tube Rolling Equipment.

### Price List of Short Mandrels

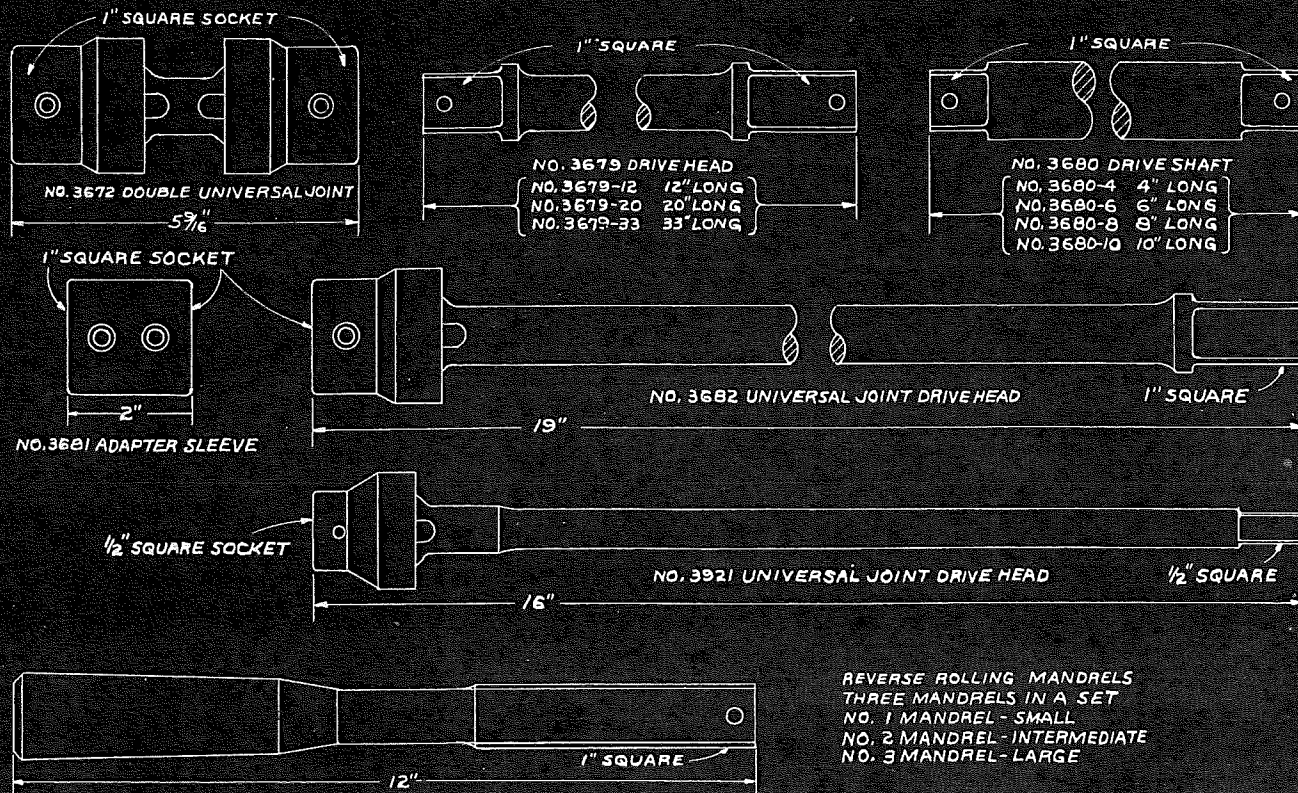
MANDREL NUMBER	6-0	5-0	4-0	3-0	2-0	1-0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
AVERAGE WEIGHT—POUNDS	3/4	3/4	3/4	1	1	1	1	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 3/4	1 3/4	1 3/4	2	2	2 1/4	2 1/4	2 3/4	2 3/4	3	3	3	3	3	
PRICE	\$6.00 EACH, ANY SIZE, EITHER "A", "B", "C" OR "D" SERIES																											

MANDRELS REQUIRED FOR FULL EXPANSION RANGE OF NO. 3274 TOOLS																											
MARKED SIZE OF TOOL	2 5/16	2 3/8	2 1/2	2 1/2	2 5/8	2 11/16	2 3/4	2 15/16	2 7/8	2 15/8	3	3 1/8	3 1/4	3 1/4	3 3/8	3 7/16	3 1/2	3 5/8	3 11/16	3 3/4	3 7/8	3 15/16	4	4 1/4	4 1/2		
"A" SERIES MANDRELS	2-0	2-0	2-0	2-0	2	2	1	2	2	3	4	5	5	5	8	7	8	8	10	8	11	10	11	11	14		
	1-0	1-0	1-0	1-0	3	3	2	3	3	4	5	6	6	6	9	8	9	9	10	10	12	10	13	12	15		
	1	1	1	1	4	4	3	4	4	5	6	7	7	7	10	9	10	10	10	12	10	13	12	13	16		
	2	2	2	2	5	5	4	5	5	6	7	8	8	8	11	10	11	11	13	11	14	13	14	14	17		
"B" SERIES MANDRELS	3-0	2-0	2-0	2-0	2	2	1	2	2	3	4	5	5	5	8	7	8	8	10	8	11	10	11	11	14		
	1-0	1	1	1	4	4	3	4	4	5	6	7	7	7	10	9	10	10	10	12	10	13	12	13	16		
	2	3	3	3	6	6	5	6	6	7	8	9	9	9	12	11	12	12	14	12	15	14	15	18			
	3	3	3	3	8	8	7	8	8	9	10	11	11	11	14	13	14	14	16	14	17	16	17	17	20		
"C" SERIES MANDRELS	2-0	2-0	2-0	2-0	2	2	1	2	2	3	4	5	5	5	8	7	8	8	10	8	11	10	11	11	14		
	2	2	2	2	5	5	4	5	5	6	7	8	8	8	11	10	11	11	13	11	14	13	14	17			
	3	3	3	3	8	8	7	8	8	9	10	11	11	11	14	13	14	14	16	14	17	16	17	20			
	4	4	4	4	8	8	7	8	8	9	10	11	11	11	14	13	14	14	16	14	17	16	17	20			
"D" SERIES MANDRELS	2-0	2-0	2-0	2-0	2	2	1	2	2	3	4	5	5	5	8	7	8	8	10	8	11	10	11	11	14		
	2	2	2	2	5	5	4	5	5	6	7	8	8	8	11	10	11	11	13	11	14	13	14	17			
	3	3	3	3	8	8	7	8	8	9	10	11	11	11	14	13	14	14	16	14	17	16	17	20			
	4	4	4	4	8	8	7	8	8	9	10	11	11	11	14	13	14	14	16	14	17	16	17	20			





The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri



**THE FAESSLER TUBE ROLLING EQUIPMENT, as shown above, consists of the following:—**

- No. 3672—Double Universal Joint.
- No. 3679—Drive Heads—(Three Lengths)
- No. 3680—Drive Shafts—(Four Lengths)
- No. 3681—Adapter Sleeve.
- No. 3682—Universal Joint Drive Head.
- No. 3921—Universal Joint Drive Head.
- Reverse Rolling Mandrels for use in No. 3274 and No. 3747 Expanders.
- On page 25 we show our No. 3733-18 Reversible Ratchet Wrench.
- On page 26 we show our No. 3760-6 Gear Drive for right angle rolling.
- See pages 27 and 28 for typical applications of this equipment.

**Price List of Tube Rolling Equipment**

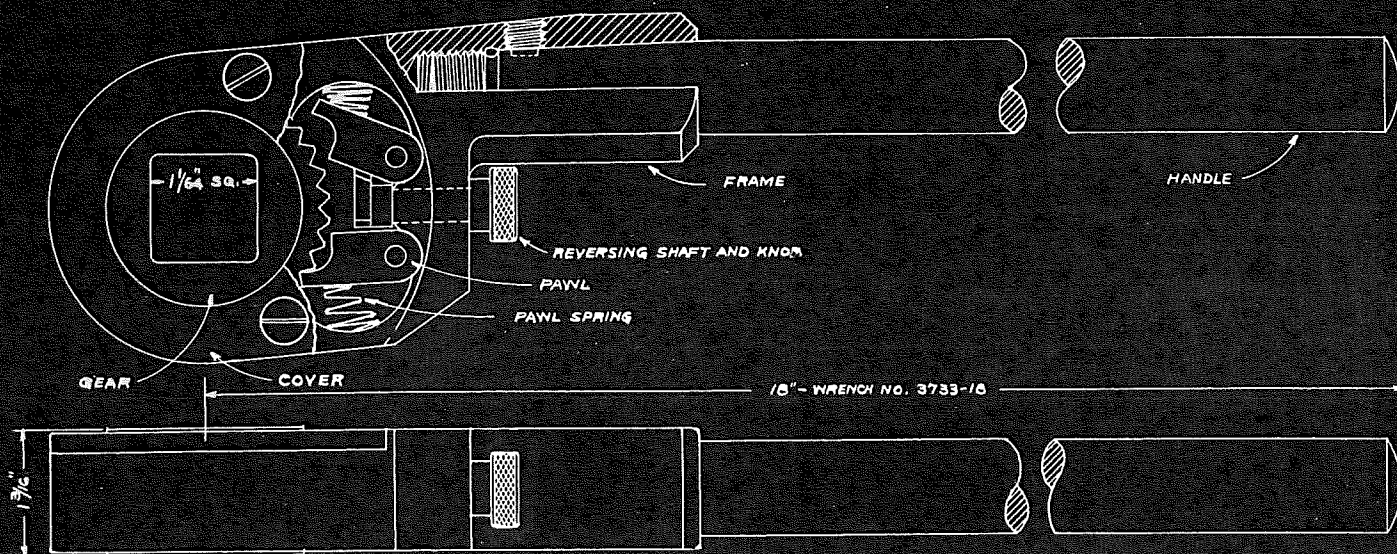
NUMBER AND NAME OF PART	3672 DOUBLE UNIVERSAL JOINT	3679-12 DRIVE HEAD	3679-20 DRIVE HEAD	3679-33 DRIVE HEAD	3680-4 DRIVE SHAFT	3680-6 DRIVE SHAFT	3680-8 DRIVE SHAFT	3680-10 DRIVE SHAFT	3681 ADAPTER SLEEVE	3682 UNIVERSAL JOINT DRIVE HEAD	3921 UNIVERSAL JOINT DRIVE HEAD	REVERSE ROLLING MANDRELS
PRICE	\$20.00	5.50	7.50	13.75	2.00	2.50	3.00	3.50	6.50	17.00	17.00	22.50 SET OF THREE
WEIGHT-POUNDS	3 1/2	2	6 1/2	10	1 1/2	2	3	3 1/2	1	5	2	10 SET OF THREE



The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri



THE FAESSLER No. 3733-18 REVERSIBLE RATCHET WRENCH



The Faessler Reversible Ratchet Wrench is of all steel construction. The pawls are positive in action, and the reversing knob conveniently located.

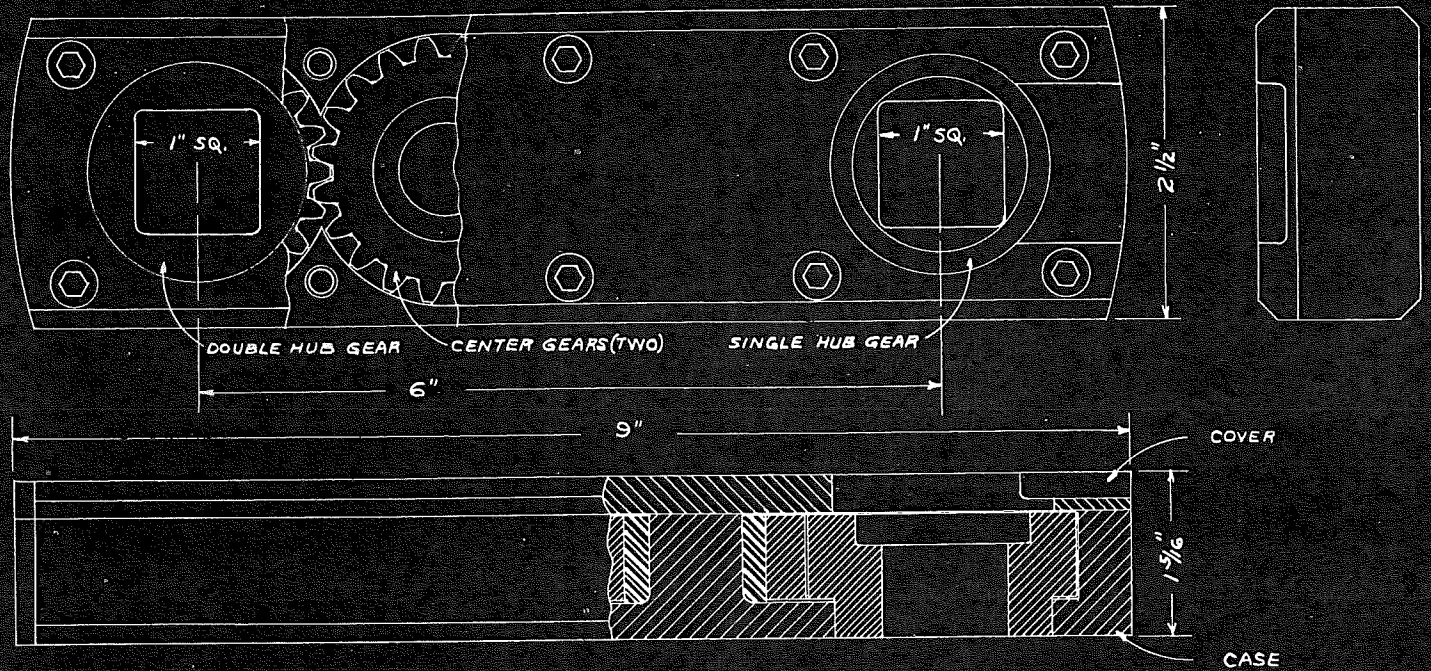
Price List of Wrench No. 3733-18

	PRICE	WEIGHT
WRENCH COMPLETE	\$18.00	6 POUNDS
GEAR	3.00	1 POUND
PAWLS TWO	1.50	
PAWL SPRINGS TWO	.20	



The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri

THE FAESSLER No. 3760-6 GEAR DRIVE



The Faessler Gear Drive was designed for use on right angle rolling jobs, and provides a means of much faster rolling than a ratchet wrench.

This drive is very strong and durable, and very compactly constructed of heat treated stub-tooth gears, and heat treated case and cover.

Our No. 3679-12 Drive Head is usually ordered for use as a driver for this drive.

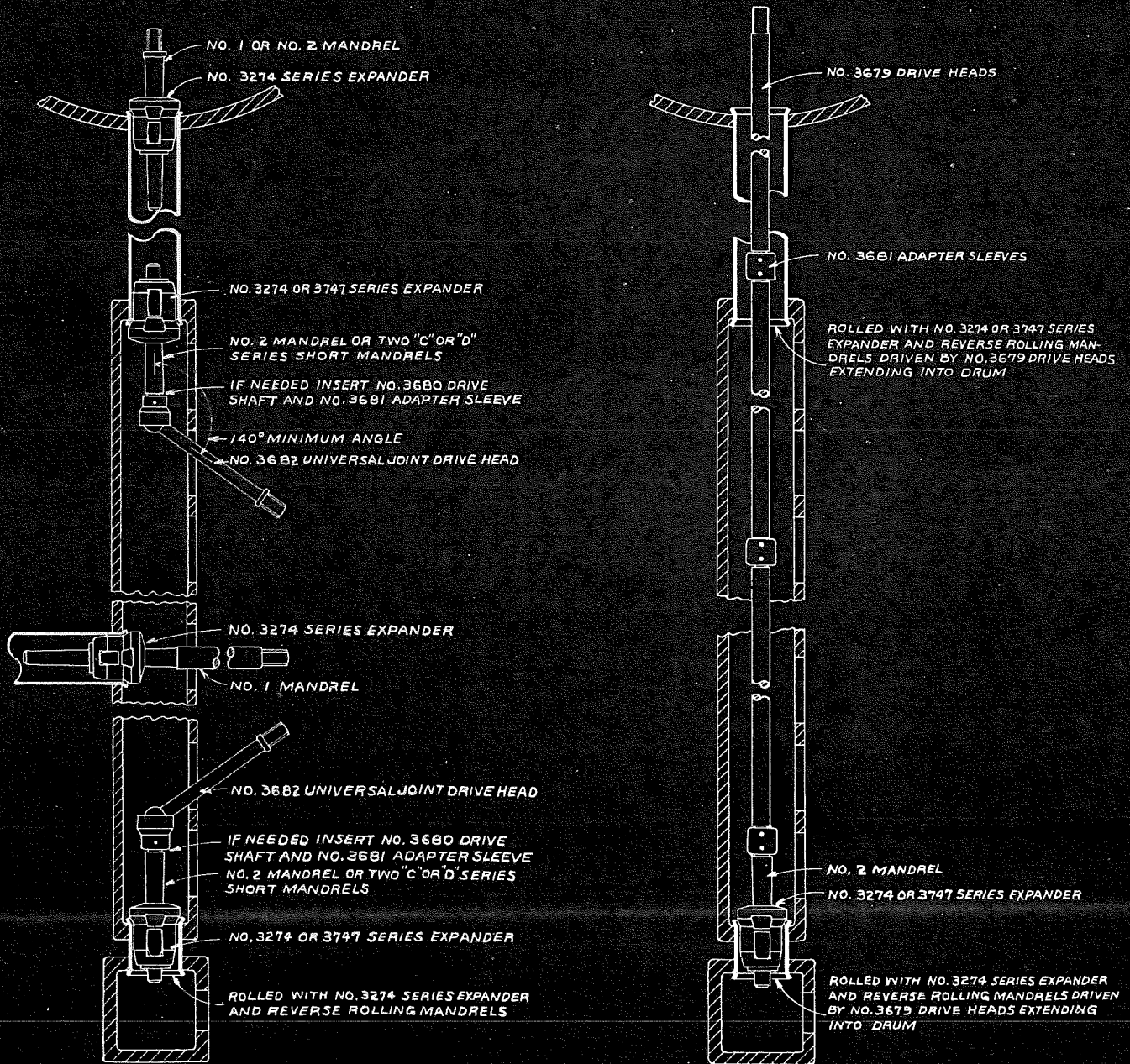
See page 28 for typical applications of this drive.

Price List of Gear Drive No. 3760-6

	PRICE	WEIGHT
GEAR DRIVE COMPLETE	\$75.00	7 POUNDS
GEARS ONLY EACH	\$ 5.25	1/2 POUND
GEARS ONLY SET	\$21.00	2 POUNDS



# TYPICAL APPLICATION OF FAESSLER No. 3274 and 3747 EXPANDERS, With Faessler Tube Rolling Equipment

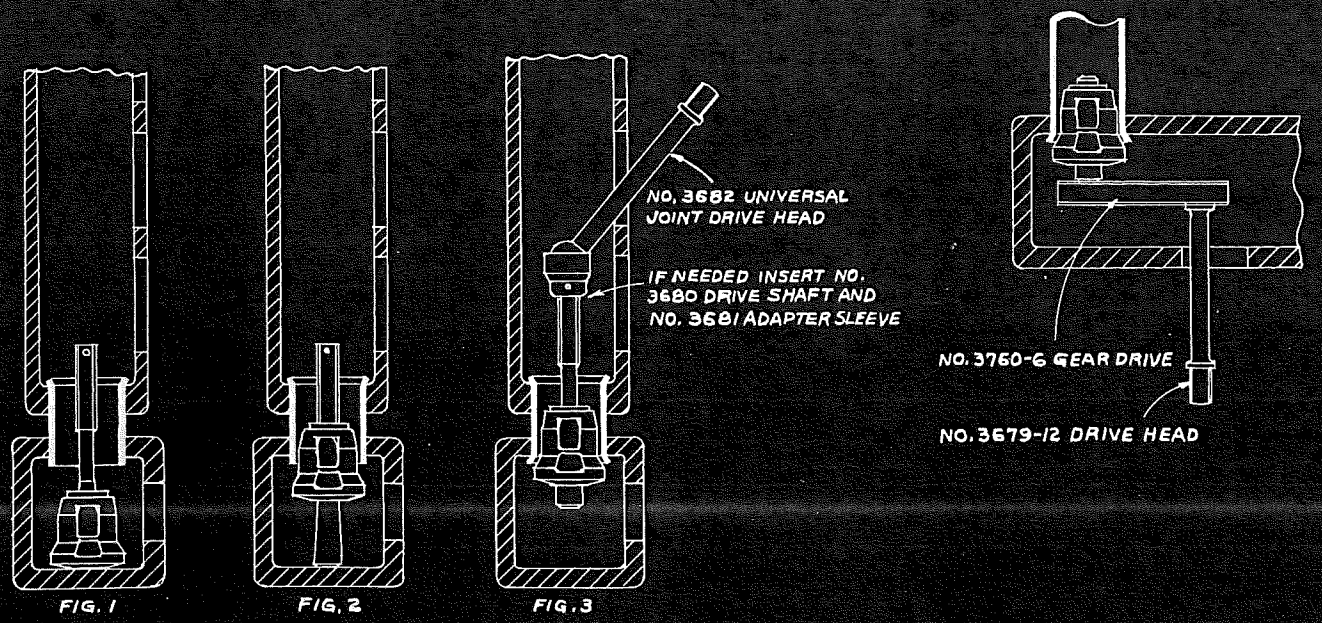
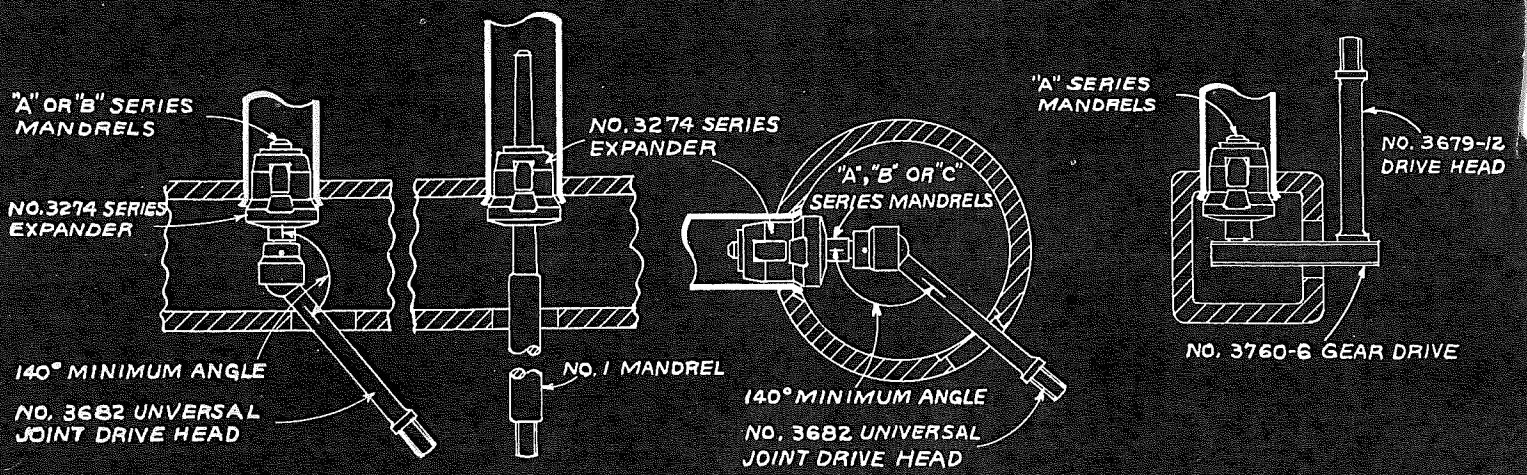






The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri

TYPICAL APPLICATION OF FAESSLER No. 3274 and 3747 EXPANDERS, with Faessler Tube Rolling Equipment

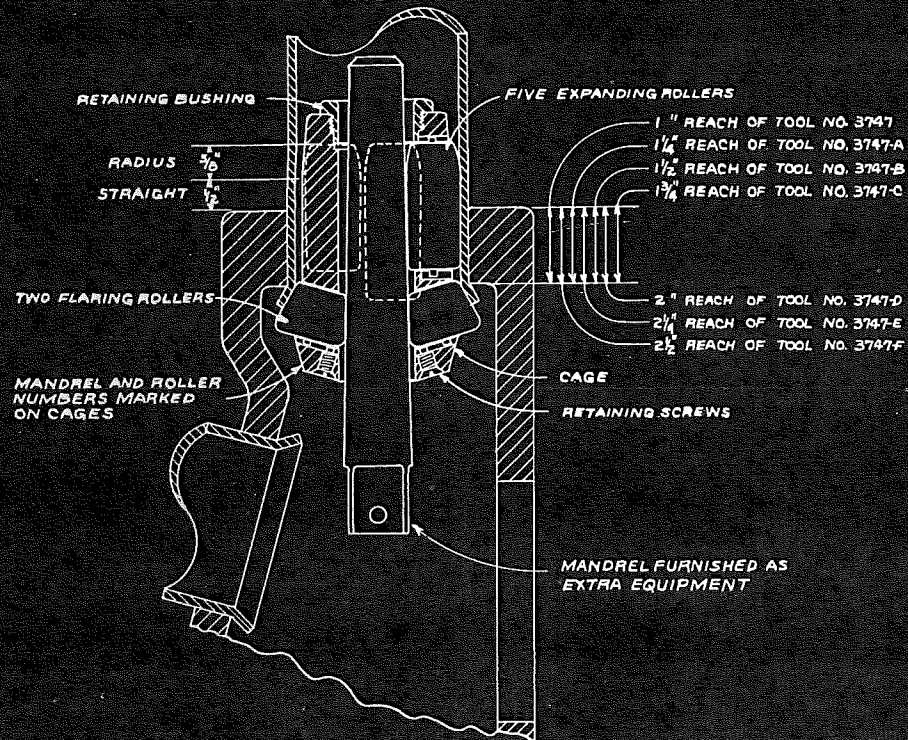


METHOD OF ROLLING LOWER END OF MUD DRUM NIPPLES WITH NO. 3274 SERIES EXPANDER AND REVERSE ROLLING MANDRELS





## THE FAESSLER No. 3747 ROLLING AND FLARING TUBE EXPANDER Parallel Rolling Type



The Faessler No. 3747 series of expanders is of the same design as the No. 3274 series, but is made with a smaller diameter cage, for use in the upper ends of Sectional Headers where space is so limited a No. 3274 tool cannot be used.

This tool has the same parallel rolling feature as the No. 3274, and uses all styles of No. 3274 mandrels, including the "A", "B", "C" and "D" series of short mandrels.

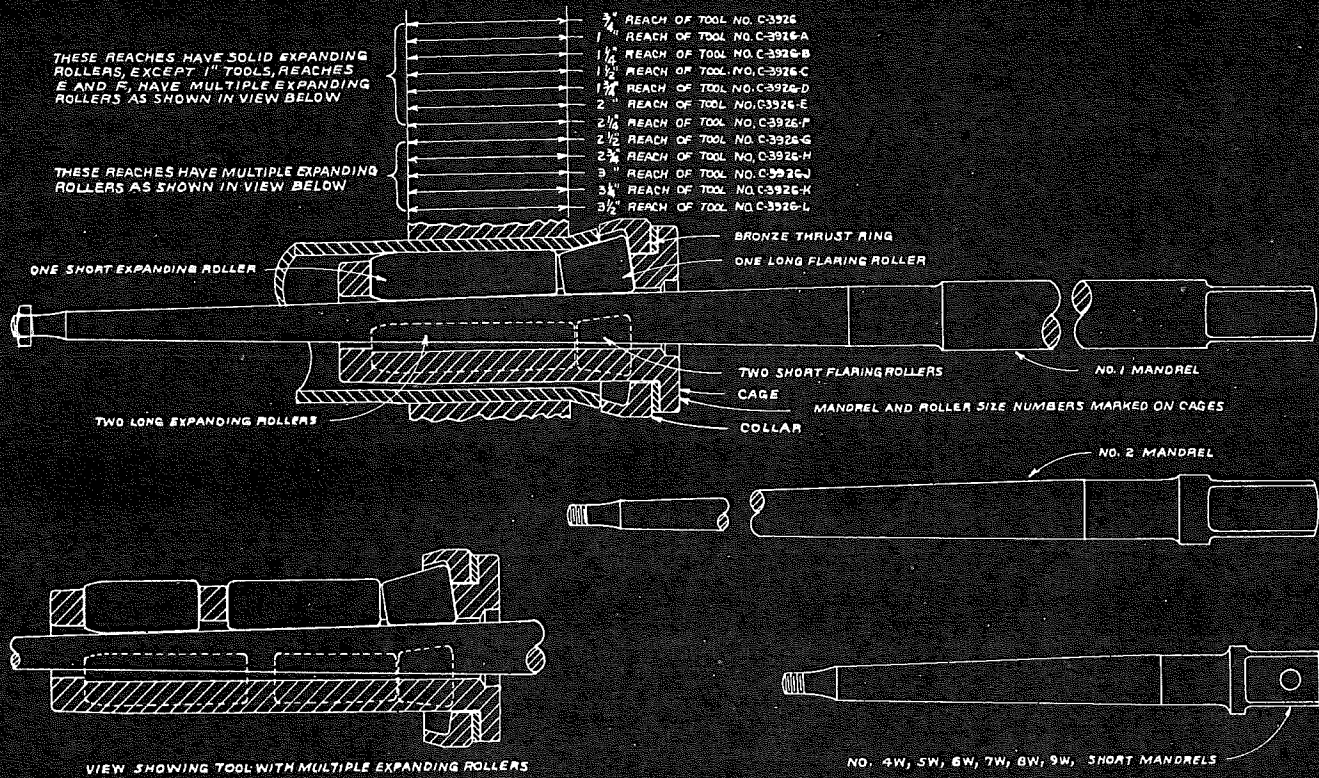
### Price List of Expanders No. 3747

MARKED SIZE OF TOOL		—INCHES	2½	2¾	2 <sup>11</sup> / <sub>16</sub>	2¾	2 <sup>15</sup> / <sub>16</sub>	2¾	2 <sup>15</sup> / <sub>16</sub>	3	3½	3¾	3¾	3¾	3 <sup>7</sup> / <sub>16</sub>	3½	3¾	3 <sup>11</sup> / <sub>16</sub>	3¾	3¾	3 <sup>15</sup> / <sub>16</sub>	4	4¾	4¾		
LARGEST DIAMETER ON CAGE		—INCHES	2 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	2 <sup>15</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>16</sub>	2 <sup>19</sup> / <sub>16</sub>	2 <sup>11</sup> / <sub>16</sub>	2 <sup>23</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>	2 <sup>27</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	2 <sup>15</sup> / <sub>16</sub>	3	3 <sup>1</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	3 <sup>15</sup> / <sub>16</sub>	3 <sup>15</sup> / <sub>16</sub>	3 <sup>15</sup> / <sub>16</sub>		
TOOL	REACH 1	1¼	\$ 52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	54.50	54.50	
	TOOL NO. 3747	3747-A																								
COMPLETE LESS MANDREL	REACH 1½	1¾	\$ 55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	57.50	57.50	
	TOOL NO. 3747-B	3747-C 3747-D	2																							
MANDREL MARKING	REACH 2¾	2½	\$ 60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	62.50	62.50	
	TOOL NO. 3747-E	3747-F																								
ROLLERS-SET	SIZE NUMBER		9	11	11	13	13	13	15	15	17	17	17	21	19	21	21	23	21	25	23	25	25	25	27	
	REACH 1	1¼	\$ 11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	13.00	13.00	
	TOOL NO. 3747	3747-A																								
	REACH 1½	1¾	\$ 12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	13.60	13.60
	TOOL NO. 3747-B	3747-C	2																							
ROLLER MARKING	REACH 2		\$ 13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	13.10	14.50	14.50	
	TOOL NO. 3747-D																									
	REACH 2¾	2½	\$ 15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	16.50	16.50	
TOOL NO. 3747-E	3747-F																									
SIZE NUMBER		29	29	31	33	35	37	37	39	41	43	45	45	49	49	53	53	57	57	61	61	69	69	71	71	



The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri

## THE FAESSLER No. C-3926 ROLLING AND FLARING TUBE EXPANDER FOR SMALL TUBES



### Parallel Rolling Type

This expander rolls and flares the tubes in one operation. It is self-feeding, and of the parallel rolling type; that is, the expanding rollers are suitably tapered to produce uniform expansion and tightness of the tube throughout the full thickness of the tube sheet. This parallel rolling feature is very necessary in obtaining a tight joint in thick tube sheets.

For the extra thick sheets this tool is constructed with multiple expanding rollers, which makes a very strong, durable and efficient tool.

This tool has a loose collar, which bears against the end of the tube with all the end thrust taken by a bronze thrust ring. This collar is of small outside diameter in proportion to the expander size, which feature permits the tool to enter small plug holes and adapts it for use where space around the tube end is limited. The "W" series of short mandrels which can be supplied with the C-3926 and C-3926-A tools, used in connection with our No. 3921 Universal Joint Drive Head, makes these tools very adaptable to a variety of angle rolling jobs. These expanders are accurately constructed of alloy steel and every part correctly heat treated.

See next page for Price List of this Expander.



Price List of Expander No. C-3926

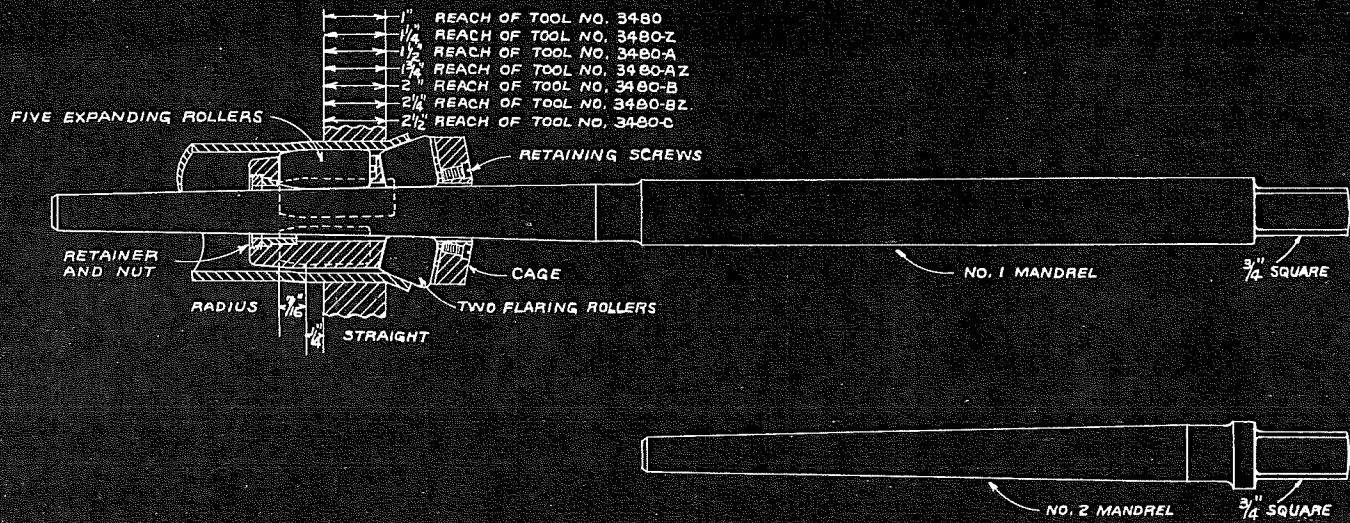
TOOL MARKING—SIZE OF TOOL AND INSIDE DIAMETER OF TUBE ENTERED		INCHES	1 X .760	1 <sup>1</sup> / <sub>16</sub> X .822	1 <sup>1</sup> / <sub>8</sub> X .875	1 <sup>3</sup> / <sub>16</sub> X .937	1 <sup>1</sup> / <sub>4</sub> X 1.000	1 <sup>5</sup> / <sub>16</sub> X 1.062	1 <sup>3</sup> / <sub>8</sub> X 1.125	1 <sup>7</sup> / <sub>16</sub> X 1.187	1 <sup>1</sup> / <sub>2</sub> X 1.250
RANGE OF TOOL—INSIDE DIAMETER		INCHES	.760-.885	.822-.947	.875-1.016	.937-1.078	1.000-1.156	1.062-1.218	1.125-1.312	1.187-1.375	1.250-1.437
WEIGHT—WITH NUMBER 1 MANDREL		POUNDS	1	1	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	2	2
TOOL COMPLETE WITH NUMBER 1 MANDREL	REACH 3/4" 1" 1 1/4" 1 1/2" TOOL NO. C-3926 C-3926-A C-3926-B C-3926-C	\$	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00
	REACH 1 3/4" 2" 2 3/4" TOOL NO. C-3926-D C-3926-E C-3926-F	\$	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00
	REACH 2 1/2" 2 3/4" 3" 3 1/4" 3 1/2" TOOL NO. C-3926-G C-3926-H C-3926-I C-3926-K C-3926-L	\$	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00	37.00
NUMBER 1 MANDRELS	REACH 3/4" 1" 1 1/4" 1 1/2" 1 3/4" 2" TOOL NO. C-3926 C-3926-A C-3926-B C-3926-C C-3926-D C-3926-E	\$	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50
	MANDREL MARKING FOR ABOVE REACHES		1-8-C-3926-Y	1-8-C-3926-Y	1-9-C-3926-Y	1-10-C-3926-Y	1-11-C-3926-Y	1-11-C-3926-Y	1-12-C-3926-Y	1-12-C-3926-Y	1-12-C-3926-Y
	REACH 2 1/4" 2 1/2" 2 3/4" 3" 3 1/4" 3 1/2" TOOL NO. C-3926-F C-3926-G C-3926-H C-3926-I C-3926-K C-3926-L	\$	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
	MANDREL MARKING FOR ABOVE REACHES		1-8-C-3926-Z	1-8-C-3926-Z	1-9-C-3926-Z	1-10-C-3926-Z	1-11-C-3926-Z	1-11-C-3926-Z	1-12-C-3926-Z	1-12-C-3926-Z	1-12-C-3926-Z
NUMBER 2 MANDRELS	REACH 3/4" 1" 1 1/4" 1 1/2" 1 3/4" 2" TOOL NO. C-3926 C-3926-A C-3926-B C-3926-C C-3926-D C-3926-E	\$	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50
	MANDREL MARKING FOR ABOVE REACHES		2-8-C-3926-Y	2-8-C-3926-Y	2-9-C-3926-Y	2-10-C-3926-Y	2-11-C-3926-Y	2-11-C-3926-Y	2-12-C-3926-Y	2-12-C-3926-Y	2-12-C-3926-Y
	REACH 2 1/4" 2 1/2" 2 3/4" 3" 3 1/4" 3 1/2" TOOL NO. C-3926-F C-3926-G C-3926-H C-3926-I C-3926-K C-3926-L	\$	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
	MANDREL MARKING FOR ABOVE REACHES		2-8-C-3926-Z	2-8-C-3926-Z	2-9-C-3926-Z	2-10-C-3926-Z	2-11-C-3926-Z	2-11-C-3926-Z	2-12-C-3926-Z	2-12-C-3926-Z	2-12-C-3926-Z
"W" SERIES SHORT MANDRELS-SET AS SHOWN FOR EACH SIZE TOOL	SUITABLE FOR 3/4" REACH—TOOL NO. C-3926 AND 1" REACH—TOOL NO. C-3926-A ONLY	\$	12.00	12.00	12.00	12.00	12.00	12.00	16.00	16.00	16.00
	MANDRELS REQUIRED FOR FULL EXPANSION RANGE OF TOOL		4, 5, 6	4, 5, 6	4, 5, 6	5, 6, 7	6, 7, 8	6, 7, 8	6, 7, 8, 9	6, 7, 8, 9	6, 7, 8, 9
ROLLERS-SET	REACH 3/4" 1" 1 1/4" 1 1/2" 1 3/4" 2" 2 1/4" TOOL NO. C-3926 C-3926-A C-3926-B C-3926-C C-3926-D C-3926-E C-3926-F	\$	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	REACH 2 1/2" 2 3/4" 3" 3 1/4" 3 1/2" TOOL NO. C-3926-G C-3926-H C-3926-I C-3926-K C-3926-L	\$	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
	SIZE NUMBER MARKING ON ROLLERS		11	13	15	16	17	19	21	23	25



The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri



## THE FAESSLER No. 3480 ROLLING AND FLARING TUBE EXPANDER



### Parallel Rolling Type

This expander was designed to roll and flare 2" and 2 1/4" O. D. Tubes. It rolls and flares in one operation and is self-feeding. It is also parallel rolling; that is the expanding rollers are suitably tapered to produce uniform expansion and tightness of the tube throughout the full thickness of the tube sheet.

The rollers cannot fall in or out of the cage when the mandrel is removed.

Made of alloy steel, correctly heat treated.

### Price List of Expanders No. 3480

MARKED SIZE OF TOOL		INCHES		1 3/4	1 13/16	1 7/8	1 15/16	2	2 1/16	2 1/8	2 3/16	2 1/4
TOOL COMPLETE WITH NUMBER 1 MANDREL	REACH 1	1 1/4	1 1/2	\$ 55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
	TOOL NO. 3480	3480-Z	3480-A									
NUMBER 1 MANDREL	REACH 1 3/4	2	2 1/4	\$ 58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00
	TOOL NO. 3480-AZ	3480-B	3480-BZ	3480-C								
NUMBER 1 MANDREL	ALL REACHES			\$ 12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
NUMBER 2 MANDREL	ALL REACHES			\$ 7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20
ROLLERS-SET	REACH 1	1 1/4	1 1/2	\$ 9.20	9.20	9.20	9.20	9.20	9.20	9.20	9.20	9.20
	TOOL NO. 3480	3480-Z	3480-A									
ROLLERS-SET	REACH 1 3/4	2	2 1/4	\$ 9.70	9.70	9.70	9.70	9.70	9.70	9.70	9.70	9.70
	TOOL NO. 3480-AZ	3480-B	3480-BZ	3480-C								

The following chart gives the inside diameters entered, maximum expansion, weight, and sizes of tubes for which these tools are suitable.

MARKED SIZE OF TOOL INCHES	ENTERS INSIDE DIA. OF TUBE INCHES	MAXIMUM EXPANSION INCHES	ENTERS ROUND HAND-HOLE DIA. INCHES	WEIGHT WITH NUMBER 1 MANDREL POUNDS	SIZE AND WALL THICKNESS OF TUBES FOR WHICH TOOLS ARE SUITABLE	
					2" O. D. TUBE BWG. WALL	2 1/4" O. D. TUBE BWG. WALL
1 3/4	1 1/16	1 11/16	2	5 1/2	5,6	
1 13/16	1 1/2	1 3/4	2 1/16	5 1/2	6,7,8	
1 7/8	1 9/16	1 13/16	2 1/8	5 1/2	7,8,9	
1 15/16	1 5/8	1 7/8	2 3/16	6	9,10,11	3,4
2	1 11/16	1 15/16	2 1/4	6	11,12	5,6
2 1/16	1 3/4	2	2 3/16	6		7,8
2 1/8	1 13/16	2 1/16	2 3/8	6 1/2		8,9,10
2 3/16	1 7/8	2 1/8	2 7/16	6 1/2		9,10,11,12
2 1/4	1 15/16	2 3/16	2 1/2	6 1/2		11,12

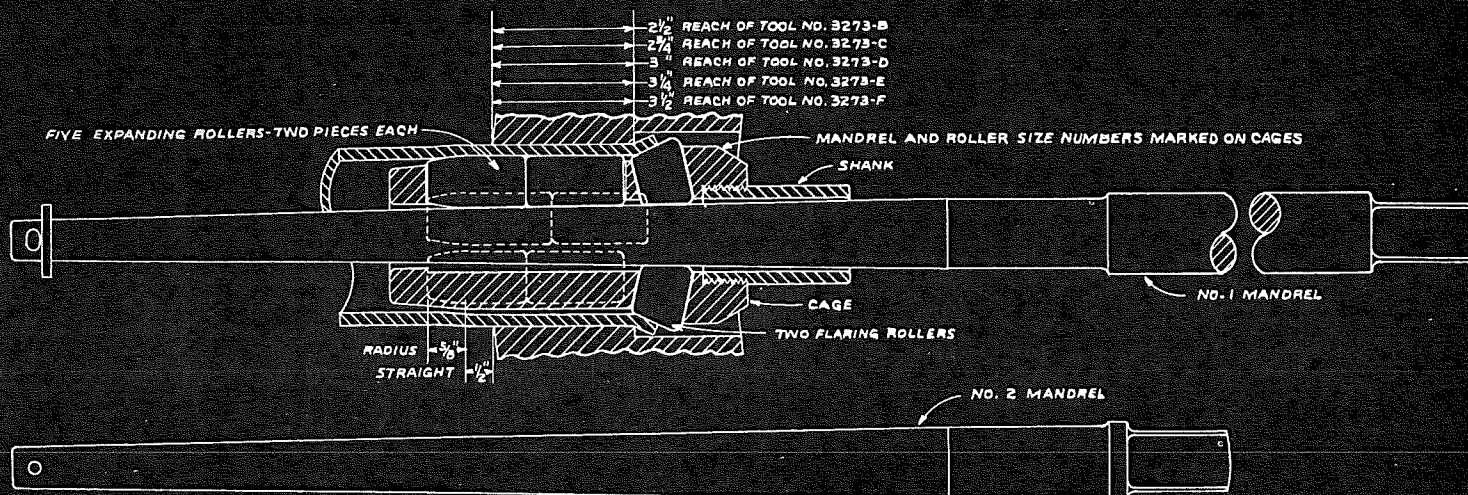




The J. FAESSLER MANUFACTURING COMPANY • Moberly, Missouri



## THE FAESSLER No. 3273 ROLLING AND FLARING TUBE EXPANDER FOR TUBES IN THICK SHEETS



### Parallel Rolling Type

The Faessler No. 3273 series expander is designed for use in drum rolling, or other installations, where the tube sheet is 2 1/2" or more in thickness. This tool is of the self-feeding, parallel rolling type; that is, the expanding rollers are suitably tapered to produce uniform expansion and tightness of the tube throughout the full thickness of the tube sheet. This parallel rolling feature is very necessary in obtaining a tight joint in thick tube sheets.

Another distinctive feature is the long, easy radius on the lead end of the expanding rollers, which avoids any abrupt shoulder in the tube.

The multiple expanding roller construction of this tool makes it superior to an expander with solid, or one-piece expanding rollers, for rolling tubes in very thick tube sheets. The knurled grip shank projecting from the cage provides a means of easy handling of the tool when used in inside counterbored drums.

This tool is constructed entirely of alloy bar steel, properly heat treated.

For tube sizes for which these tools are suitable, and other data, see page 18.

### Price List of Expanders No. 3273

MARKED SIZE OF TOOL	INCHES	2 5/8	2 11/16	2 3/4	2 13/16	2 7/8	2 15/16	3	3 1/8	3 1/16	3 1/4	3 3/8	3 7/16	3 1/2	3 5/8	3 11/16	3 3/4	3 7/8	3 15/16	4
TOOL COMPLETE WITH NUMBER 1 MANDREL	2 1/2 REACH—TOOL NO. 3273-B	\$80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00
	2 3/4 REACH—TOOL NO. 3273-C	\$85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00
	3 REACH—TOOL NO. 3273-D	\$90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
	3 1/4 REACH—TOOL NO. 3273-E	\$95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00
	3 1/2 REACH—TOOL NO. 3273-F	\$100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
NUMBER 1 MANDREL	ALL REACHES	\$15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
NUMBER 2 MANDREL	ALL REACHES	\$ 9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
MANDREL MARKING AND HEAD SIZE	SIZE NUMBER	14	14	14	14	14	16	16	18	18	18	22	20	22	22	24	22	26	24	26
	SIZE OF SQUARE INCHES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ROLLERS—SET	2 1/2 REACH—TOOL NO. 3273-B	\$16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
	2 3/4 REACH—TOOL NO. 3273-C	\$17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50
	3 REACH—TOOL NO. 3273-D	\$19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	3 1/4 REACH—TOOL NO. 3273-E	\$21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50
	3 1/2 REACH—TOOL NO. 3273-F	\$23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50
ROLLER MARKING	SIZE NUMBER	30	32	34	36	38	38	40	42	44	46	46	50	50	54	54	58	58	62	62