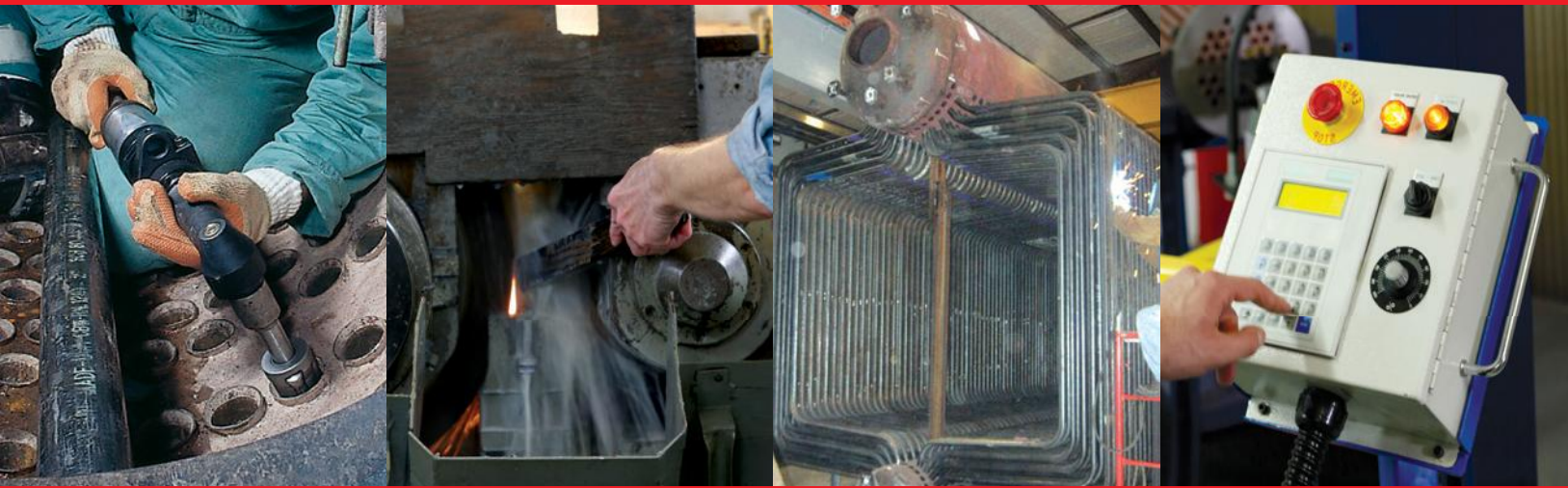




TRUSTED TO PERFORM

## Boiler Tube Expanders and Accessories



Tools for the maintenance and repair of...

**FIRE TUBE BOILERS**

**WATER TUBE BOILERS**

**SUPER HEATERS**

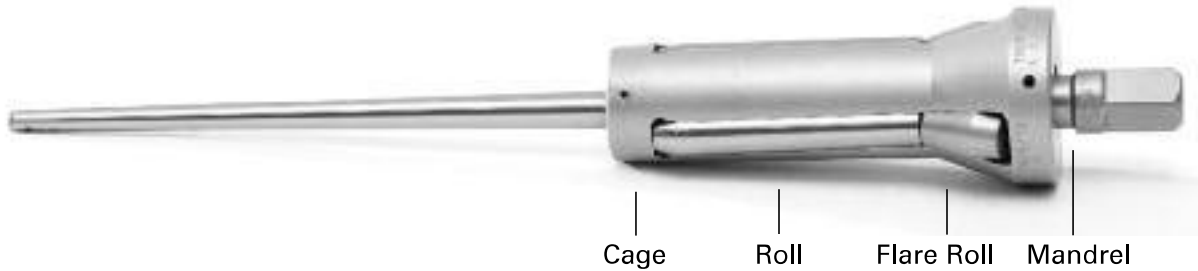
**PRESSURE VESSELS**

*and other tubular structures  
and pressure vessels*

# Series 38 Expanders

## Three Roll - Parallel Expanding - Three Flare Roll Type

### 38 EXPANDERS WITH DRUM MANDREL

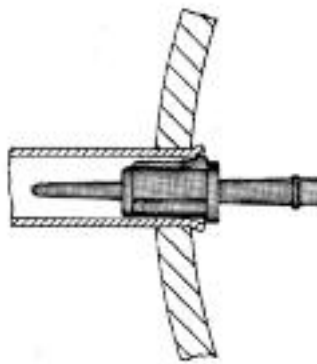


#### Applications

- Water Tube Boilers
- Superheaters
- Fire Tube Boilers
- Economizers

#### Features

- Self-Feeding
- Three-Roll
- Three Flare Rolls
- Self-Contained Rolls
- Various Mandrels Available:  
Drum, Short, Header,  
Reverse



Steam/Mud Drum: 38 Series with drum mandrel.

Tube OD Inches (mm)	GA	Range Inches (mm)	Tube Seat Thickness - Inches (mm)										Drum Mandrel		
			1/2 to 7/8 (12.7-22.2)		3/4 to 1" (19.1-28.6)		1" to 1" (28.6-41.3)		1" to 2" (41.3-54.0)		2" to 2" (54.0-66.7)		1/2-Inch sq. Inches (mm)		
			Expander Assembly*	Spare Rolls	Expander Assembly*	Spare Rolls	Expander Assembly*	Spare Rolls	Expander Assembly*	Spare Rolls	Expander Assembly*	Spare Rolls	Expander Assembly*	Spare Rolls	
1 (25.4)	8	.645-.719 (16.4-18.3)	31001	31446	31002	31450	31004	31456	31006	32626					32262
	9	.680-.786 (17.3-20.0)	31011		31012	31482	31014		31016						7" Lg (200)
	10	.703-.815 (17.9-20.7)	31021	31478	31022		31024	31488	31026	32632					32263
	11	.734-.845 (18.6-21.5)	31031		31032		31034		31036						8" Lg (220)
	12-13	.760-.881 (19.3-22.4)	31041	31494	31042	31498	31044	31504	31046	31753	31048	32355			32264
1 1/2 (28.6)	14	.813-.944 (20.7-24.0)	31051		31052		31054		31056						9" Lg (233)
	11-12	.859-1.004 (21.8-25.5)	31071	31510	31072	31514	31074	31520	31076	32641					32265
1 1/2 (31.8)	13-14	.906-1.068 (23.0-27.1)	31081		31082		31084		31086						10" Lg (260)
	10-11	.939-1.118 (23.9-28.4)	31091	31526	31092	31530	31094	31536	31096	32647	31088	31438			32266
1 1/2 (38.1)	12-15	.990-1.193 (25.2-30.3)	31101	31542	31102	31546	31104	31552	31106	32653	31108	32249			11" Lg (284)
	8	1.053-1.257 (26.8-31.9)	31121		31122		31124		31126						32267
	9-11	1.156-1.349 (29.4-34.3)	31131	31558	31132	31562	31134	31568	31136	32656					12 Lg (305)
1 1/2 (44.5)	12-14	1.248-1.432 (31.7-36.4)	31151	31574	31152	31578	31154	31584	31156	32662					32268
	9-11	1.400-1.615 (35.6-41.0)	31161	40322	31162	40324	31164	40326	31166	40328	31168	40330			3/4 sq. 12 Lg (305)

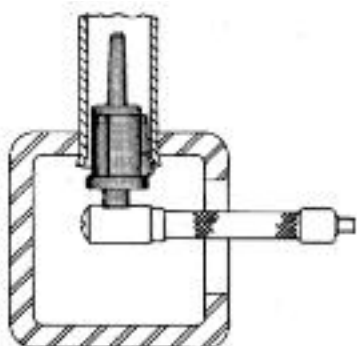
\* No mandrels included in assembly

#### TUBE WALL THICKNESS OF WALL IN BIRMINGHAM WIRE GAUGE

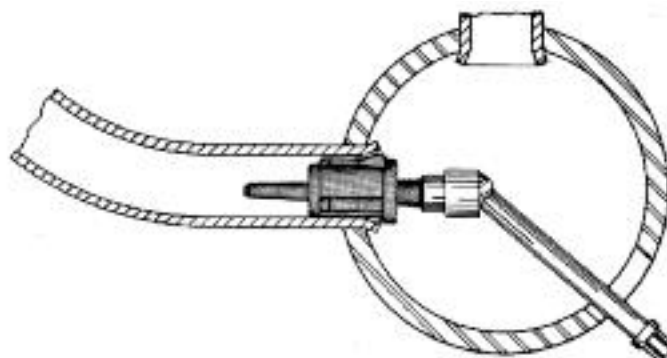
GA	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Inch	.028	.032	.035	.042	.049	.058	.065	.072	.083	.095	.109	.120	.134	.148	.165	.180	.203	.220	.238	.259	.284	.300	.340
mm	.7	.8	.9	1.1	1.2	1.5	1.7	1.8	2.1	2.4	2.8	3.0	3.4	3.8	4.2	4.6	5.2	5.6	6.0	6.6	7.2	7.6	8.6

# Header Tube Expansion

When water tube boilers do not offer easy access to the tube seat, Thomas C. Wilson, Inc. offers a variety of solutions. Our **Series 38** and **Series 114 Expanders** are available with a series of short mandrels. Used with gear trains, right angle drives or universal joints (See Pages 24-25), they make tube rolling possible through a header or handhole.



Square Header: **38 Series Expander** with short series mandrels connected to Wilson Right Angle Worm Gear Drive (pg 25).



Round Header: **38 Series Expander** with short series mandrels connected to Wilson Extension Universal Joint (pg 23).



Tube		Expander Assembly*	Short Mandrels - 5/8-Inch (136.6mm) lg. - 1/2-Inch Square (12.7mm)				2 1/2 to 2 1/2 (54.0-66.7)
OD Inches (mm)	GA		Tube Seat Thickness = X Inches (mm)				
			1/2 to 7/8 (12.7-22.2)	3/4 to 1 1/8 (19.1-28.6)	1 1/8 to 1 1/2 (28.6-41.3)	1 1/2 to 2 (41.3-54.0)	
1 (25.4)	8	3100X	33624	33623 & 33624		33622 & 33624	-
	9	3101X	33622 & 33624		33621 & 33624	33621, 33623 & 33624	-
	10	3102X	33624	33623 & 33624		33622 & 33624	-
	11	3103X		33623 & 32463		33622, 32351 & 32463	-
	12	3104X		32351 & 32464			32351 & 32463
	13		32465		33624 & 32465		33624 & 32464
	14	3105X	33624			33622 & 33624	-
1 1/8 (28.6)	11	3107X	32464 & 32466			32463 & 32466	-
	12		32467		32465 & 32467		-
	13	3108X	32465			32463 & 32465	-
	14				32464 & 32467		
1 1/2 (31.8)	10	3109X			32465 & 32468		
	11			32467 & 32470		32468 & 32471	
	12	3110X		32465 & 32468		32464, 32466 & 32468	32464, 32465 & 32466
	13		32469		32466 & 32469		32466, 32467 & 32468
	14			32468 & 32471			32468, 32469 & 32470
15		32472		32469 & 32472		32469, 32470 & 32471	
1 3/8 (38.1)	8	3112X	32470 & 32473			32469, 32471 & 32473	-
	9	3113X		32472 & 32475		32471, 32473 & 32475	-
	10			32474 & 32477		32473, 32475 & 32477	-
	11		32477 & 32480			32476, 32478 & 32480	-
	12	3115X		32471 & 32474			-
	13			32473 & 32476			-
14			32474 & 32477			-	
1 1/2 (44.5)	9	3116X		32307 & 32308		-	-
	10			32308 & 32309		-	-
	11		32309 & 32310	32308, 32309 & 32310		-	-

\* No mandrels included in assembly