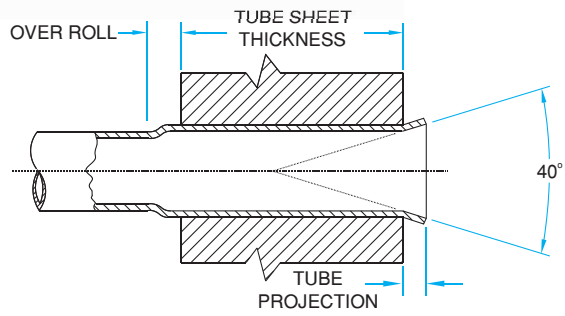


2"-4 1/2"
O.D.

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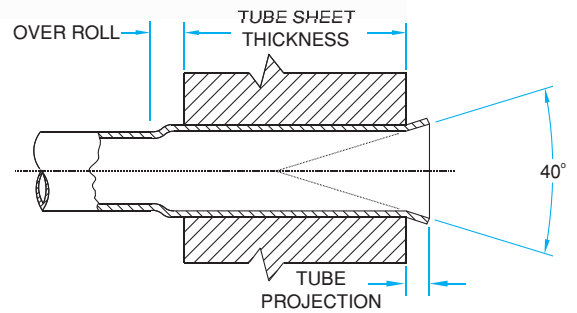
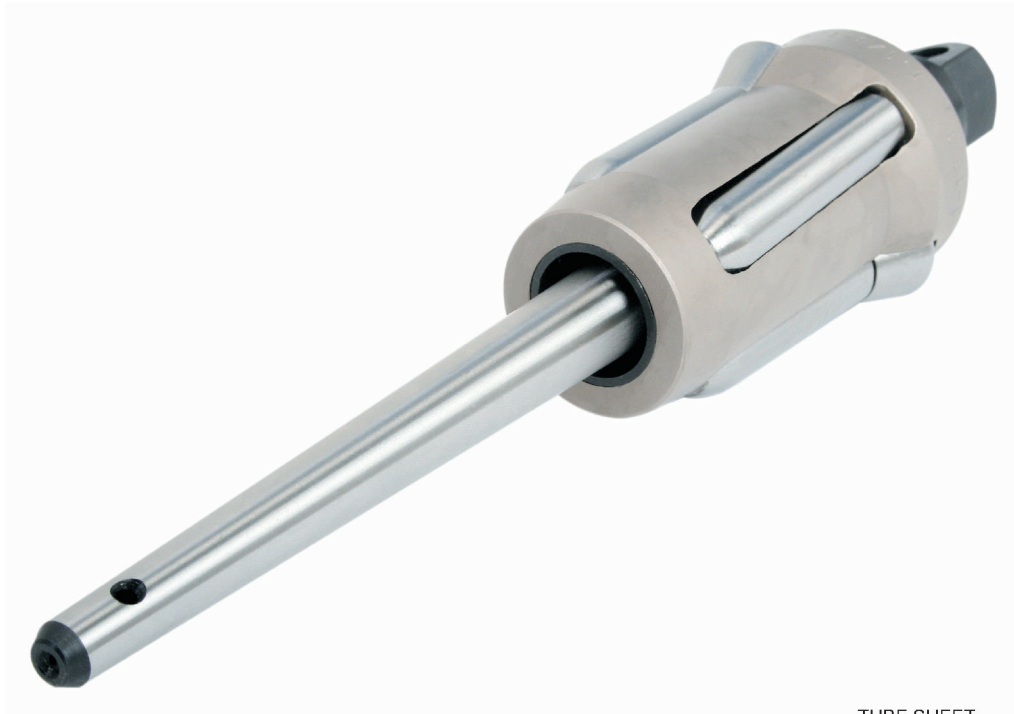
- Features :*
- Overlapping rolls prevent ridging of tube.
 - Can be converted for parallel expansion use - enquire with us.
 - Self retained rolls in cage.
 - Compact design for use through small hand holes, headers etc.
 - Use - General purpose expander for expanding and flaring boiler tubes, water wall, downcomer, economizer, riser and air heater tubes.



| Tube O.D. | Tube Thickness | | Tube O.D. | Tube Thickness | | Minimum I.D. Tool Enters | | Maximum Expansion Of Tool | | Tube Expander Model Number Tube Sheet Thickness Range | | | | |
|-----------|----------------|-------------|-----------|----------------|-------------|--------------------------|-------|---------------------------|-------|--|--------------|----------------|------------------|------------------|
| | inch | bwg | | inch | bwg | inch | mm | inch | mm | inch | 1/2" To 7/8" | 3/4" To 1.1/8" | 1.1/8" To 1.5/8" | 1.5/8" To 2.1/8" |
| 2 | 4 & 5 | .238 & .220 | 1.3/4 | 11 - 13 | .120 - .095 | 36.7 | 1.444 | 43.1 | 1.696 | - | 14172 | 14174 | 14176 | 14178 |
| 2 | 6 & 7 | .203 & .180 | 1.3/4 | 14 - 16 | .480 - .065 | 38.3 | 1.507 | 44.6 | 1.755 | - | 14182 | 14184 | 14186 | 14188 |
| 2 | 7 & 8 | .180 & .165 | | | | 39.9 | 1.570 | 46.4 | 1.826 | 14191 | 14192 | 14194 | 14196 | 14198 |
| 2 | 9 & 10 | .148 & .134 | 2.1/4 | 13 | .095 | 41.5 | 1.633 | 48.0 | 1.889 | 14201 | 14202 | 14204 | 14206 | 14208 |
| 2 | 11 - 13 | .120 - .095 | 2.1/4 | 4 & 5 | .238 & .220 | 43.1 | 1.696 | 49.6 | 1.952 | 14211 | 14212 | 14214 | 14216 | 14218 |
| 2.1/2 | 2 | .284 | 2.1/4 | 6 - 8 | .203 - .165 | 45.5 | 1.791 | 52.6 | 2.070 | - | 14222 | 14224 | 14226 | 14228 |
| 2.1/2 | 3 & 4 | .259 & .238 | 2.1/4 | 9 - 11 | .148 - .120 | 47.1 | 1.856 | 54.2 | 2.133 | - | 14232 | 14234 | 14236 | 14238 |
| 2.1/2 | 4 - 6 | .238 - .203 | 2.1/4 | 12 - 15 | .109 - .072 | 49.0 | 1.929 | 57.3 | 2.255 | - | 14242 | 14244 | 14246 | 14248 |
| 2.1/2 | 7 - 10 | .180 - .134 | 2.3/4 | 2 & 3 | .284 & .259 | 51.9 | 2.043 | 60.5 | 2.381 | - | 14252 | 14254 | 14256 | 14258 |
| 2.1/2 | 11 - 13 | .120 - .095 | 2.3/4 | 4 & 5 | .238 & .220 | 55.1 | 2.169 | 63.7 | 2.507 | 14261 | 14262 | 14264 | 14266 | 14268 |
| 3 | 1 - 3 | .300 - .259 | 2.3/4 | 6 - 10 | .203 - .134 | 57.4 | 2.259 | 66.6 | 2.622 | - | 14272 | 14274 | 14276 | 14278 |
| 3 | 4 - 6 | .238 - .203 | 2.3/4 | 11 - 15 | .120 - .072 | 60.6 | 2.385 | 70.0 | 2.755 | - | 14282 | 14284 | 14286 | 14288 |
| 3 | 7 - 11 | .180 - .120 | 3.1/4 | 1 - 4 | .300 - .238 | 63.8 | 2.511 | 73.9 | 2.909 | - | 14292 | 14294 | 14296 | 14298 |
| 3 | 10 - 12 | .134 - .109 | 3.1/4 | 4 - 7 | .238 - .180 | 66.9 | 2.635 | 77.3 | 3.043 | 14301 | 14302 | 14304 | 14306 | 14308 |
| 3.1/2 | 1 - 4 | .300 - .238 | 3.1/4 | 7 - 11 | .180 - .120 | 70.1 | 2.759 | 80.1 | 3.153 | - | 14312 | 14314 | 14316 | 14318 |
| 3.1/2 | 4 - 7 | .238 - .180 | 3.1/4 | 10 - 15 | .134 - .072 | 73.0 | 2.874 | 83.4 | 3.283 | - | 14322 | 14324 | 14326 | 14328 |
| 3.1/2 | 7 - 11 | .180 - .120 | 3.3/4 | 2 & 3 | .284 & .259 | 76.2 | 3.000 | 86.8 | 3.417 | - | 14332 | 14334 | 14336 | 14338 |
| 3.1/2 | 10 - 12 | .134 - .109 | 3.3/4 | 4 & 5 | .238 & .220 | 79.3 | 3.122 | 89.8 | 3.535 | - | 14342 | 14344 | 14346 | 14348 |
| 4 | 1 - 4 | .300 - .238 | 3.3/4 | 6 - 10 | .203 - .134 | 82.5 | 3.248 | 93.0 | 3.661 | - | 14352 | 14354 | 14356 | 14358 |
| 4 | 4 - 7 | .238 - .180 | 3.3/4 | 11 - 15 | .120 - .072 | 85.7 | 3.374 | 96.0 | 3.779 | - | 14362 | 14364 | 14366 | 14368 |
| 4 | 7 - 11 | .180 - .120 | 4.1/4 | 2 & 3 | .284 & .259 | 88.9 | 3.500 | 98.6 | 3.881 | - | 14372 | 14374 | 14376 | 14378 |
| 4 | 8 - 12 | .165 - .109 | 4.1/4 | 3 & 5 | .259 & .220 | 90.5 | 3.562 | 102.3 | 4.027 | - | 14382 | 14384 | 14386 | 14388 |
| 4.1/2 | 1 - 4 | .300 - .238 | 4.1/4 | 6 - 9 | .203 - .148 | 95.2 | 3.748 | 104.7 | 4.122 | - | 14392 | 14394 | 14396 | 14398 |
| 4.1/2 | 3 - 8 | .238 - .165 | 4.1/4 | 10 - 13 | .134 - .095 | 98.4 | 3.874 | 110.3 | 4.342 | - | 14402 | 14404 | 14406 | 14408 |
| 4.1/2 | 6 - 12 | .203 - .109 | - | - | - | 101.6 | 4.000 | 113.5 | 4.468 | - | 14412 | 14414 | 14416 | 14418 |

114 SERIES

2" - 4 1/2"
O.D.



| Spare Rollers Set Model Number Tube Sheet Thickness Range | | | | | Mandrel Square Drive Size inch | Drum Type | Header Type | Spare Mandrel Model Number | | | | |
|--|----------------------|------------------------|------------------------|------------------------|--|--------------|----------------|-------------------------------|-------------------------|--|----------------------------|--|
| 1/2" To 7/8" | 3/4" To 1.1/8" | 1.1/8" To 1.5/8" | 1.5/8" To 2.1/8" | 2.1/8" To 2.5/8" | | | | Short Series 5.1/8 inch | | | Short Series 7.1/8 inch | |
| - | 34872 | 34874 | 34878 | 34948 | 3/4 | 32269 | 32289 | 32308 32309 32310 32311 | 34876, 34948 | | | |
| - | 34879 | 34881 | 34883 | 34949 | 3/4 | 32269 | 32289 | 32309 32310 32311 | - | | | |
| 34878 | 34879 | 34881 | 34883 | 34949 | 3/4 | 32270 | 32290 | 32309 32310 32311 32312 | - | | | |
| 34878 | 34879 | 34881 | 34883 | 34949 | 3/4 | 32271 | 32291 | 32311 32312 32313 | 32346 | | | |
| 34885 | 34886 | 34888 | 34890 | 34950 | 3/4 | 32270 | 32290 | 32310 32311 32312 | 32345 | | | |
| - | 34893 | 34895 | 34897 | 34951 | 3/4 | 32270 | 32290 | 32310 32311 32312 32313 | - | | | |
| - | 34893 | 34895 | 34897 | 34951 | 3/4 | 32271 | 32291 | 32311 32312 32313 32314 | - | | | |
| - | 34893 | 34895 | 34897 | 34951 | 3/4 | 32272 | 32292 | 32312 32313 21214 32315 32316 | - | | | |
| - | 34900 | 34902 | 34904 | 34952 | 3/4 | 32272 | 32292 | 32312 32313 32314 32315 32316 | 32347 32348 32349 | | | |
| 34899 | 34900 | 34902 | 34904 | 34952 | 3/4 | 32273 | 32293 | 32315 32316 32317 | 33630 33631 | | | |
| - | 34907 | 34909 | 34911 | 34953 | 3/4 | 32273 | 32293 | 32315 32316 32317 32318 32319 | - | | | |
| - | 34907 | 34909 | 34911 | 34953 | 1 | 32274 | 32294 | 32317 32318 32319 32320 32321 | - | | | |
| - | 34914 | 34916 | 34918 | 34954 | 1 | 32274 | 32294 | 32318 32319 32320 32321 32322 | 33632 33633 33634 33635 | | | |
| 34913 | 34914 | 34916 | 34918 | 34954 | 1 | 32275 | 32295 | 32320 32321 32322 | 33634 33635 | | | |
| - | 34921 | 34923 | 34925 | 34955 | 1 | 32274 | 32294 | 32318 32319 32320 32321 32322 | - | | | |
| - | 34921 | 34923 | 34925 | 34955 | 1 | 32275 | 32295 | 32321 32322 32323 32324 32325 | - | | | |
| - | 34921 | 34923 | 34925 | 34955 | 1 | 32276 | 32296 | 32323 32324 32325 32326 32327 | - | | | |
| - | 34921 | 34923 | 34925 | 34955 | 1 | 32277 | 32297 | 32324 32325 32326 32327 32328 | - | | | |
| - | 34928 | 34930 | 34932 | 34956 | 1 | 32276 | 32296 | 32324 32325 32326 32327 32328 | - | | | |
| - | 34928 | 34930 | 34932 | 34956 | 1 | 32277 | 32297 | 32326 32327 32328 32329 32330 | - | | | |
| - | 34928 | 34930 | 34932 | 34956 | 1 | 32278 | 32298 | 32328 32329 32330 32331 32332 | - | | | |
| - | 34935 | 34937 | 34939 | 34957 | 1 | 32277 | 32297 | 32324 32325 32326 32327 32328 | - | | | |
| - | 34935 | 34937 | 34939 | 34957 | 1 | 32278 | 32298 | 32329 32330 32331 32332 32350 | - | | | |
| - | 34935 | 34937 | 34939 | 34957 | 1 | 32279 | 32299 | 32331 32332 32350 32337 32338 | - | | | |
| - | 34942 | 34944 | 34946 | 34958 | 1 | 32278 | 32298 | 32326 32327 32328 32329 32330 | - | | | |