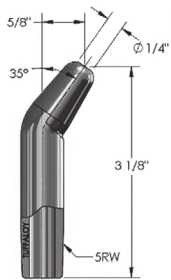
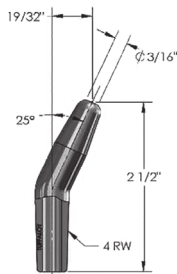


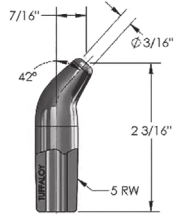
## SINGLE-BEND TIPS



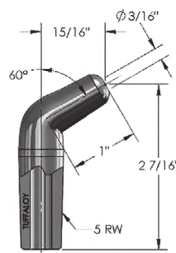
**FP-2532-10**  
Part No.  
167-5540



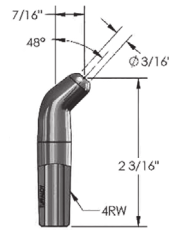
**FP-2428-9.5**  
Part No.  
167-4260



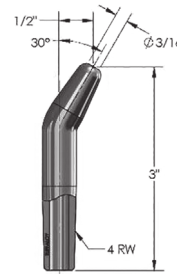
**FP-2523-7**  
Part No.  
167-5060



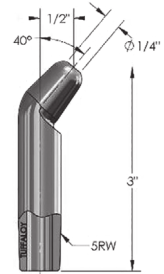
**FP-2527-15**  
Part No.  
167-5220



**FP-2423-7**  
Part No.  
167-5055

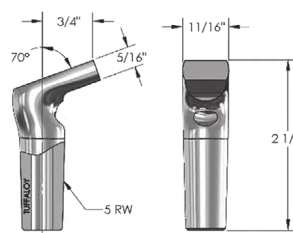


**FP-2430-8**  
Part No.  
167-5065

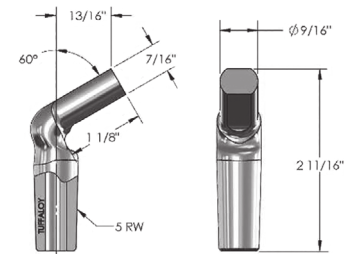


**FP-2530-8**  
Part No.  
167-5070

Cold-formed tips with a single bend have standard pointed-nose design. Other single-bend tips with flat noses (below) or other special designed noses and configurations are available on special order. These are of Class 2 (C18200) alloy. Other alloys can also be ordered.



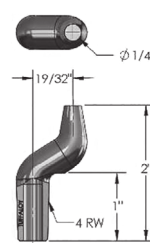
**SE-4268**  
Part No. 170-4268



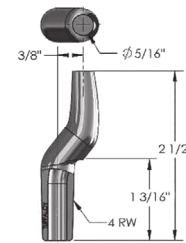
**SE-4269**  
Part No. 170-4269

## MISCELLANEOUS TIPS

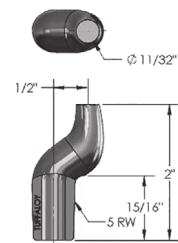
Double bend and flattened tips are made from bar stock. These are some of the standard designs available, but special designs can also be made. These are of Class 2 (C18200) alloy. Other alloys can also be ordered.



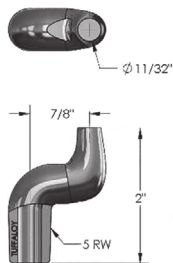
**SE-4270**  
Part No. 170-4270



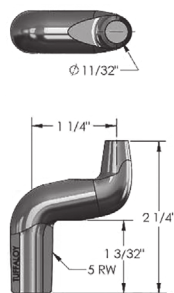
**SE-4271**  
Part No. 170-4271



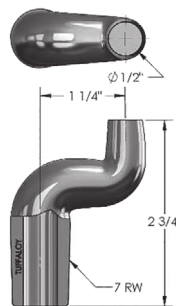
**SE-4272**  
Part No. 170-4272



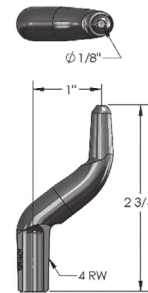
**SE-4273**  
Part No. 170-4273



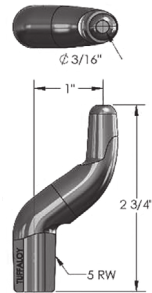
**SE-4274**  
Part No. 170-4274



**SE-4275**  
Part No. 170-4275



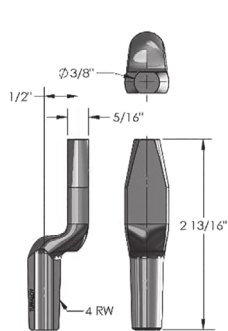
**SE-4276-1**  
Part No. 170-4276-1



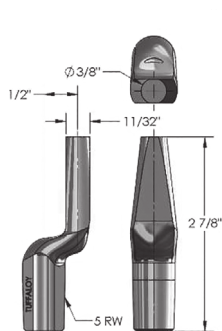
**SE-4276**  
Part No. 170-4276



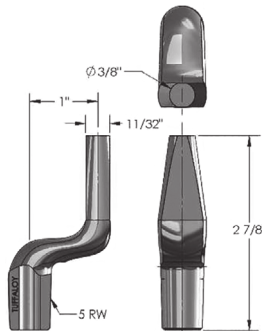
These standard bent tips are in addition to those shown on [page 11](#). They are made of Class 2 (C18200) alloy. Other alloys can also be ordered.



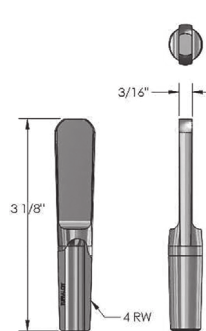
**SE-4277**  
Part No. 170-4277



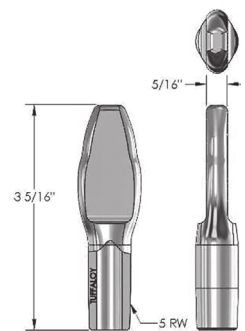
**SE-4278**  
Part No. 170-4278



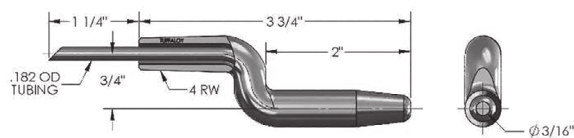
**SE-4279**  
Part No. 170-4279



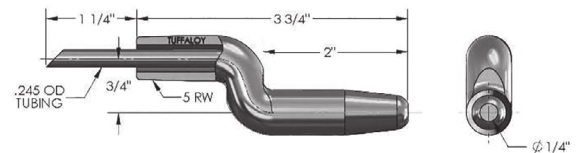
**SE-4280**  
Part No. 170-4280



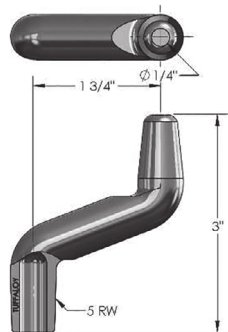
**SE-4281**  
Part No. 170-4281



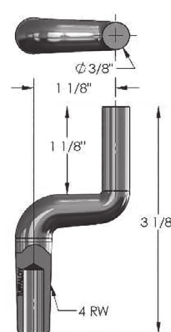
**SE-4282**  
Part No. 170-4282



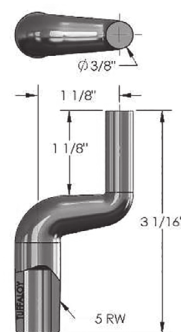
**SE-4283**  
Part No. 170-4283



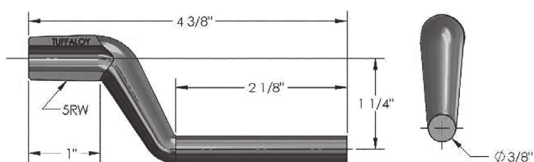
**SE-4284 (short water hole)**  
Part No. 170-4284



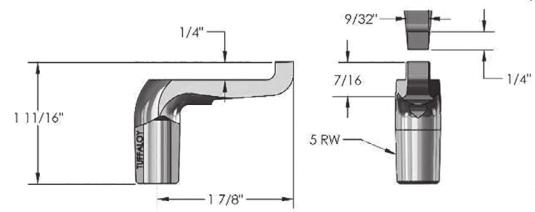
**SE-4285**  
Part No. 170-4285



**SE-4286**  
Part No. 170-4286

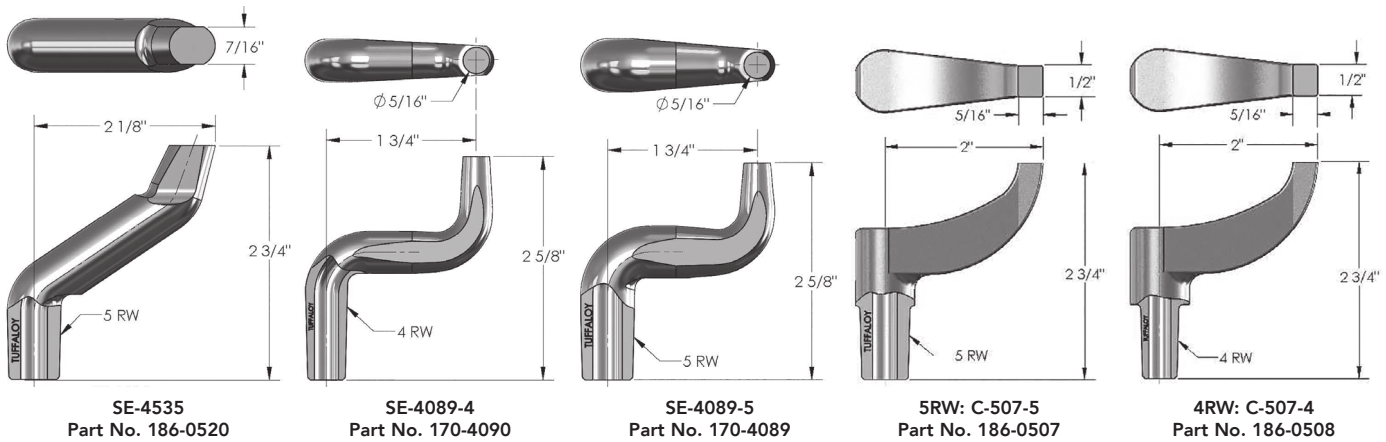


**SE-4287**  
Part No. 170-4287



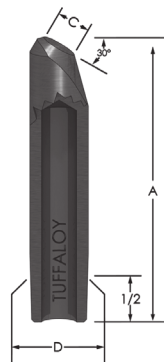
**SE-4288**  
Part No. 170-4288





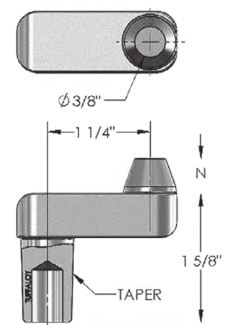
These straight tips have welding faces angled 30°.

| Alloy Class | Taper No. | Face 'C' | Length 'D' | Description | Part No. |
|-------------|-----------|----------|------------|-------------|----------|
| 2           | 4RW       | 1/4      | 2          | H-2408-30   | 145-2408 |
| 2           | 4RW       | 1/4      | 3          | H-2412-30   | 145-2412 |
| 2           | 4RW       | 1/4      | 4          | H-2416-30   | 145-2416 |
| 2           | 5RW       | 3/8      | 2          | H-2508-30   | 145-2508 |
| 2           | 5RW       | 3/8      | 3          | H-2512-30   | 145-2512 |
| 2           | 5RW       | 3/8      | 4          | H-2516-30   | 145-2516 |

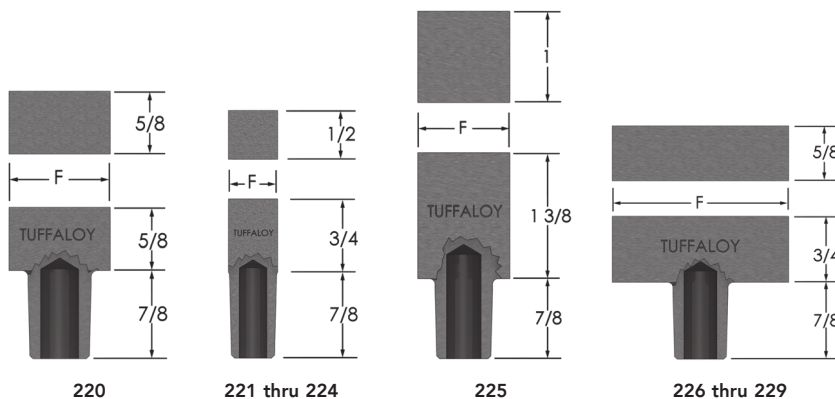


| Alloy Class | Taper No. | Length 'N' | Description | Part No. |
|-------------|-----------|------------|-------------|----------|
| 2           | 4RW       | 3/8        | N-15        | 186-0015 |
| 2           | 4RW       | 3/4        | N-16        | 186-0016 |
| 2           | 5RW       | 3/8        | N-27        | 186-0027 |
| 2           | 5RW       | 3/4        | N-28        | 186-0028 |

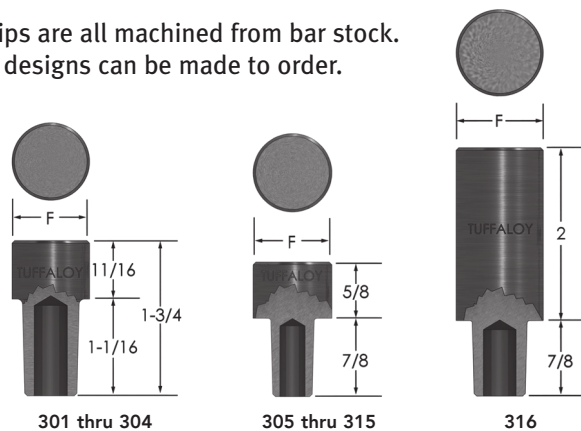
N-15 thru N-28



## BACK UP ELECTRODES



These tips are all machined from bar stock. Special designs can be made to order.



\*311, 313 and 316 available with Copper Tungsten face.

### RECTANGULAR FACE

| Alloy Class | Taper No. | Face 'F' | Description | Part No. |
|-------------|-----------|----------|-------------|----------|
| 2           | 5RW       | 1        | 220         | 186-0220 |
| 2           | 4RW       | 1/2      | 221         | 186-0221 |
| 2           | 4RW       | 1        | 223         | 186-0223 |
| 2           | 5RW       | 1        | 224         | 186-0224 |
| 2           | 5RW       | 1        | 225         | 186-0225 |
| 2           | 5RW       | 2        | 226         | 186-0226 |
| 2           | 4RW       | 2        | 227         | 186-0227 |
| 2           | 5RW       | 1-1/2    | 228         | 186-0228 |
| 2           | 4RW       | 1-1/2    | 229         | 186-0229 |

### ROUND FACE

| Alloy Class | Taper No. | Face 'F' | Description | Part No. |
|-------------|-----------|----------|-------------|----------|
| 2           | 4RW       | 7/8      | 301         | 186-0301 |
| 1           | 4RW       | 7/8      | 302         | 186-0302 |
| 2           | 5RW       | 7/8      | 303         | 186-0303 |
| 1           | 5RW       | 7/8      | 304         | 186-0304 |
| 2           | 4RW       | 7/8      | 305         | 186-0305 |
| 1           | 4RW       | 7/8      | 306         | 186-0306 |
| 2           | 5RW       | 7/8      | 307         | 186-0307 |
| 1           | 5RW       | 7/8      | 308         | 186-0308 |
| 2           | 4RW       | 1        | 309         | 186-0309 |
| 1           | 4RW       | 1        | 310         | 186-0310 |
| 2           | 5RW       | 1        | 311*        | 186-0311 |
| 1           | 5RW       | 1        | 312         | 186-0312 |
| 2           | 5RW       | 1-1/4    | 313*        | 186-0313 |
| 2           | 5RW       | 1-1/2    | 315         | 186-0315 |
| 2           | 5RW       | 1        | 316*        | 186-0316 |

Additional Back Up Electrodes with Copper Tungsten Facings – See [Page 36](#)

