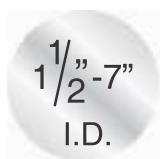




## CUTTER HEADS

### FOR STRAIGHT TUBES IN REFINERIES AND STILL TUBES



#### 'T' & 'TTC' TYPE

The model "T" & "TTC" cutter head is used for cleaning straight tubes from 1-1/2" I.D. through 7" I.D. It is usually direct coupled to drive motor but flexible couplings, universal joints or flexible holders, are used to negotiate curved or bend tubes.

The model "T" & "TTC" is for heavy and hard tube deposits as found in refinery and still tubes. It is tough in its parts and assembly as necessary to stand up in this service and it makes economical provision, as described below, for inevitable wear due to large forces which must transmit through the assembly. The model "T" & "TTC" is conformed to do its work quickly and thoroughly even when deposits are of varying thickness and hardness.

Cone cutters, with tapered cutting edges at the front of the cutter head, expand against tube deposits by centrifugal force and break up uneven shoulders of scale. This is followed by long rows of expanding "no-tract" cutter wheels which finish up with thorough, repeated cuts. Centrifugal force assures good working contact between tube deposits and cutting edges and "no tract" means that cutters cannot fall into a pattern which skips over and leaves strips of scale behind.

The expansion range (range of cutter head diameters) of these cutter heads is considerable (See chart below.) and is due to (1) slotted cutter pin bearing bores and (2) international "play" in pin bearing inserts, features which include an economical bonus. Large cutter forces transmit through and wear the cutter pin bearing bore. By designing this bore into a replaceable insert, cutter body life is greatly increased, obviously providing increased economy of operation and service life.

| Model No. | Tube I.D. inch | Minimum Dia. Over Cutter inch. | Minimum Dia. Over Cutter inch. | Cone Cutter Set Model No. | Cylinder Cutter Set Model No. | Cutter Pin Set Model No. |
|-----------|----------------|--------------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|
| TTC-14    | 1.1/2          | 1.3/8                          | 1.23/32                        | 1787-1                    | 1788-1                        | 1584-1                   |
| TTC-11    | 1.3/4          | 1.5/8                          | 2                              | 1587-1                    | 1588-2                        | 1584-1                   |
| TTC-17    | 1.7/8          | 1.11/16                        | 2                              | 2287-3                    | 2288-6                        | 1584-3                   |
| TTC-16    | 2              | 1.13/16                        | 2.3/16                         | 1787-3                    | 1788-6                        | 1584-PY                  |
| TTC-13    | 2.1/8          | 1.15/16                        | 2.5/16                         | 1787-3                    | 1788-6                        | 1584-PY                  |
| T-15      | 2.1/4          | 2.1/16                         | 2.7/16                         | 2487-3                    | 3338-6                        | 2484-PY                  |
| T-9-S     | 2.3/8          | 2.3/16                         | 2.11/16                        | C52-3                     | C76-6                         | 2484-3                   |
| T-9       | 2.1/2          | 2.1/4                          | 2.13/16                        | 1587-3                    | 1588-6                        | 1584-PY                  |
| T-8       | 2.5/8          | 2.9/16                         | 2.7/8                          | 1087-3                    | 1088-6                        | 184-3                    |
| T-7       | 2.3/4          | 2.9/16                         | 2.15/166                       | 1087-3                    | 1088-6                        | 184-3                    |
| T-6-A     | 3              | 2.11/16                        | 3.1/8                          | 1087-3                    | 1088-6                        | 184-3                    |
| T-6       | 3.1/8          | 2.13/16                        | 3.1/4                          | 1087-3                    | 1088-6                        | 184-3                    |
| T-5       | 3.1/4          | 3.1/16                         | 3.9/16                         | 987-3                     | 988-6                         | 184-3                    |
| T-4       | 3.1/2          | 3.3/16                         | 3.13/16                        | 787-3                     | 788-6                         | 884-3                    |
| T-3       | 3.3/4          | 3.9/16                         | 4.3/16                         | 887-B3                    | 888-B6                        | 884-3                    |
| T-2       | 4              | 3.3/4                          | 4.1/2                          | 887-3                     | 888-6                         | 884-3                    |
| T-1       | 4.1/4          | 3.13/16                        | 4.3/4                          | 887-3                     | 888-9                         | 884-P3                   |
| T-0       | 4.1/2          | 4.1/8                          | 4.15/16                        | 887-3                     | 888-9                         | 884-P3                   |
| T-10      | 4.3/4          | 4.3/8                          | 5.3/16                         | 887-3                     | 888-9                         | 884-P3                   |
| TTC19-H-S | 5              | 4.1/2                          | 5.9/16                         | 1287-3                    | 1288-9                        | 884-P3                   |
| TTC-19-S  | 5.1/4-5.1/2    | 4.7/8                          | 5.15/16                        | 1287-4                    | 1288-12                       | 884-P4                   |
| TTC-20-S  | 6              | 5.1/2                          | 6.1/2                          | 1287-4                    | 1288-12                       | 884-P4                   |
| TTC-21-S  | 6.1/4          | 5.3/4                          | 6.3/4                          | 11887-4                   | 11888-12                      | 884-P4                   |
| TTC-22-S  | 6.1/2          | 6                              | 71/16                          | 11887-4                   | 11888-12                      | 884-P4                   |
| TTC-23-S  | 6.3/4          | 6.1/4                          | 7.5/16                         | 8287-4                    | 8288-12                       | 2484-S4                  |
| TTC-24-S  | 7              | 6.1/2                          | 7.9/16                         | 8287-4                    | 8288-12                       | 2484-S4                  |