

Cat[®] Tricone Drill Bits Catalog



PRODUCT SUPPORT & LOGISTICS DIVISION



Cat Tricone Drill Bits

Cat® tricone drill bits are designed for the toughest and most severe rotary blasthole applications, yet suitable for all your drilling needs. Our comprehensive tricone bit offering includes a wide range of bit diameters with various carbide shapes/cutting face arrangements to maximize rate of penetration. Caterpillar's extensive experience with heat treatment technology and advanced air-cooled bearing design yields longer life, resulting in lower overall drilling costs. Please contact your Cat dealer to discuss the details of your unique application and how Caterpillar can partner with you to achieve the lowest possible drilling cost.



| Rock Formation to Tricone Bit Conversions | | | | | | | | | |
|---|-----|---------------------|------------------|------------------|---------|----------|------------------|-----|-----|
| Inch | mm | Rock Formation | | | | | | | |
| | | Limestone (soft) | Limestone (hard) | Quartzite (soft) | Granite | | Basalt | | |
| | | Sandstone | | Ironstone | | Dolorite | Quartzite (hard) | | |
| | | Rock Strength (MPa) | | | | | | | |
| | | 10 | 125 | 185 | 200 | 250 | 345 | 435 | 480 |
| 6 3/4 | 171 | S-2 | M-1 | | M-3 | | | | |
| 7 7/8 | 200 | S-2 | M-1 | | M-3 | | | | |
| 9 | 229 | S-1 | S-3 | M-2 | | | H-1 | | |
| 9 7/8 | 251 | M-1 | | | M-3 | | | H-1 | |
| 10 5/8 | 271 | S-3 | | | M-3 | | | H-1 | |
| 12 1/4 | 311 | M-1 | | | M-3 | | | H-1 | |
| 13 3/4 | 350 | M-1 | | | | | | | |

| Cat Tricone Drill Bits | | | | | | | | | | |
|------------------------|-----|----------|----------|----------|----------|----------|----------|----------|--------|-----|
| Bit Diameter | | Soft | | | Medium | | | Hard | Weight | |
| in | mm | 1 | 2 | 3 | 1 | 2 | 3 | 1 | kg | lbs |
| 6 3/4 | 171 | | 546-3432 | | 550-1610 | | 550-1612 | | 21 | 46 |
| 7 7/8 | 200 | | 589-1881 | | 589-1882 | | 589-1883 | | 37 | 81 |
| 9 | 229 | 593-8496 | | 550-1614 | | 550-1616 | | 550-1618 | 43 | 96 |
| 9 7/8 | 251 | | | | 601-1404 | | 601-1405 | 601-1406 | 66 | 145 |
| 10 5/8 | 271 | | | 596-7057 | | | 596-7059 | 596-7060 | 72 | 160 |
| 12 1/4 | 311 | | | | 601-1496 | | 601-1498 | 601-1499 | 99 | 220 |
| 13 3/4 | 350 | | | | 604-8209 | | | | 145 | 319 |

Note: Caterpillar continues to develop drill bit models for availability off-the-shelf. If your application does not have a Cat Part Number, it can be developed upon request. Please contact your local Cat dealer. All Parts listed above come with API threads, unless noted. BECO threads available upon request.

Features & Benefits

Cat Tricone Bits are built to provide what our customers expect:

- Cat Performance
- Cat Parts Distribution
- Cat Product Support
- Reduced Total Drilling Cost (TDC)*

Air Cooled Bearings - Our anti-friction design provides for long life in tough applications by reducing the heat generation of tricone drill bits.

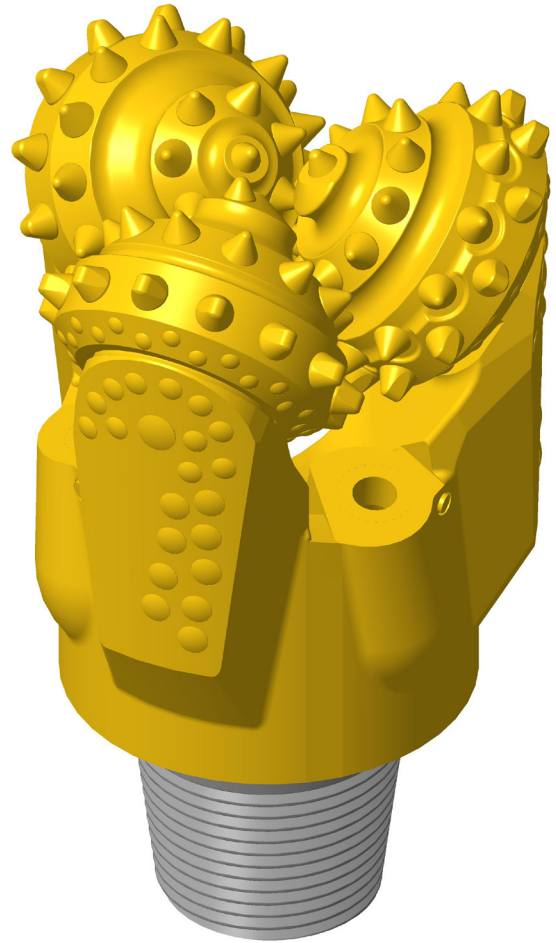
Cone Protection - Utilize special technology to prevent severe wear on the cone by drilling cuttings and unbroken rock ridges; therefore, greatly improving the working life of the bit. The gage row design has been proven to improve resistance to diameter shrinkage.

Cutting Structure – Optimized for high wear resistance and toughness of the inserts, enable aggressive cutting to increase rate of penetration.

Cone Carbide Layout - Designed to create an optimal rock fragmentation pattern to provide the highest rate of penetration for your particular application.

Shirrtail Protection - Several advanced techniques and materials are considered, the best combination is selected by our engineers to provide excellent protection in this region to further extend the bit's service life.

Cuttings Removal - Special design increases space for cutting removal with enlarged "junk slot", which facilitates removal of drilling cuttings.



6-3/4" (171 mm) Soft Formations Cat Tricone Drill Bits 546-3432

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 4-3-2 |
| Cutter shapes | Conical, Chisel and Round |
| Pin connection thread size | 3 1/2 API REG* with back flow valve |
| Approximate Weight | 46 lbs (21kg) |

*Also available in BECO pin thread

| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 587-8482 | Included |
| 9/16 | 14 | 587-8484 | Installed |
| 5/8 | 16 | 587-8485 | Included |

| Operating Parameters | |
|--------------------------|---------------------------------|
| Weight on bit (WOB) | 6,750 to 27,000 lbs (30-120 kN) |
| Rotary speed | 90 to 120 RPM |
| Air back pressure on bit | 29-58 PSI (0.2 - 0.4 MPa) |



Number of
ROWS: 4-4-3

Number of
CUTTERS: 93



6-3/4" (171 mm) Medium Formations Cat Tricone Drill Bits 550-1610

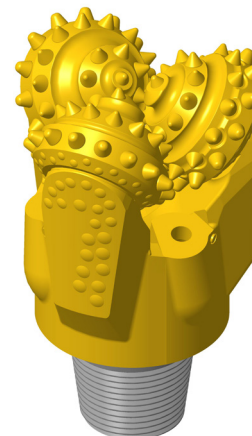
Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 5-4-2 |
| Cutter shapes | Conical and Round |
| Pin connection thread size | 3 1/2 API REG* with back flow valve |
| Approximate Weight | 46 lbs (21kg) |

*Also available in BECO pin thread

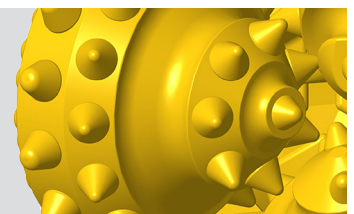
| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 587-8482 | Included |
| 9/16 | 14 | 587-8484 | Installed |
| 5/8 | 16 | 587-8485 | Included |

| Operating Parameters | |
|--------------------------|----------------------------------|
| Weight on bit (WOB) | 13,500 to 33,750 lbs (60-150 kN) |
| Rotary speed | 80 to 110 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |



Number of
ROWS: 4-4-3

Number of
CUTTERS: 93



6-3/4" (171 mm) Medium Formations Cat Tricone Drill Bits 550-1612

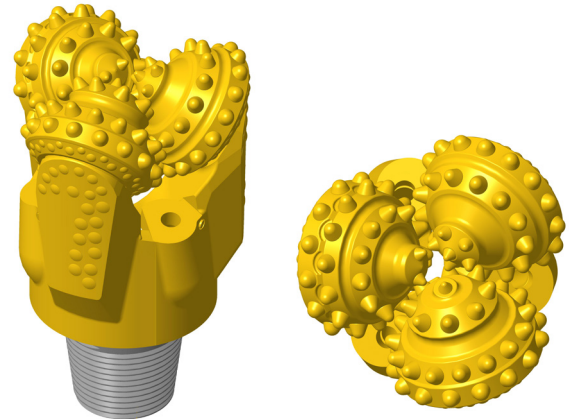
Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 6-4-2 |
| Cutter shapes | Conical, Ovoid and Round |
| Pin connection thread size | 3 1/2 API REG* with back flow valve |
| Approximate Weight | 46 lbs (21kg) |

*Also available in BECO pin thread

| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 587-8482 | Included |
| 9/16 | 14 | 587-8484 | Installed |
| 5/8 | 16 | 587-8485 | Included |

| Operating Parameters | |
|--------------------------|----------------------------------|
| Weight on bit (WOB) | 20,250 to 40,500 lbs (90-180 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |



Number of
ROWS: 4-4-4

Number of
CUTTERS: 105



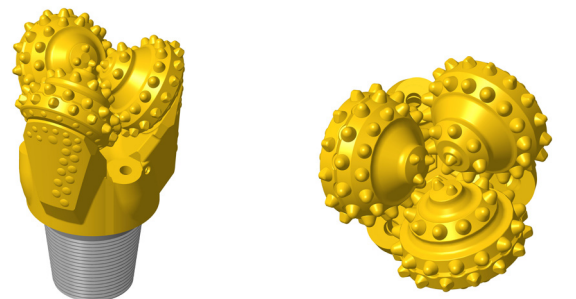
7-7/8" (200 mm) Soft Formations Cat Tricone Drill Bits 589-1881

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 4-3-2 |
| Cutter shapes | Conical and Wedge Chisel |
| Pin connection thread size | 4 1/2 API REG* with back flow valve |
| Approximate Weight | 75 lbs (34kg) |

*Also available in BECO pin thread

| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 601-6763 | Included |
| — | 13 | 601-6764 | — |
| 9/16 | 14 | 601-6775 | Installed |
| 5/8 | 16 | 601-6769 | Included |
| 11/16 | 18 | 601-6770 | — |
| 3/4 | 20 | 601-6771 | — |



Number of
ROWS: 4-4-3

Number of
CUTTERS: 88



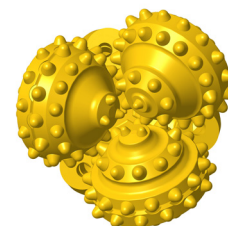
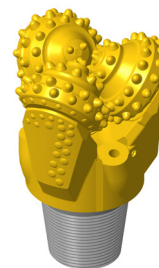
| Operating Parameters | |
|--------------------------|----------------------------------|
| Weight on bit (WOB) | 14,000 to 32,000 lbs (62-142 kN) |
| Rotary speed | 60 to 125 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

7-7/8" (200 mm) Medium Formations CatTricone Drill Bits 589-1882

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 5-4-2 |
| Cutter shapes | Conical |
| Pin connection thread size | 4 1/2 API REG* with back flow valve |
| Approximate Weight | 75 lbs (34kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 601-6763 | Included |
| — | 13 | 601-6764 | — |
| 9/16 | 14 | 601-6775 | Installed |
| 5/8 | 16 | 601-6769 | Included |
| 11/16 | 18 | 601-6770 | — |
| 3/4 | 20 | 601-6771 | — |

Number of
ROWS: 4-4-3

Number of
CUTTERS: 96



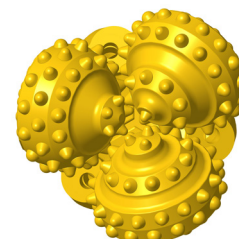
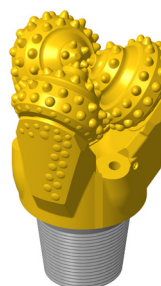
| Operating Parameters | |
|--------------------------|----------------------------------|
| Weight on bit (WOB) | 20,000 to 50,000 lbs (88-222 kN) |
| Rotary speed | 80 to 110 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

7-7/8" (200 mm) Medium Formations CatTricone Drill Bits 589-1883

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 6-4-2 |
| Cutter shapes | Conical |
| Pin connection thread size | 4 1/2 API REG* with back flow valve |
| Approximate Weight | 75 lbs (34kg) |

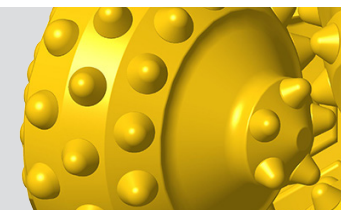
*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 601-6763 | Included |
| — | 13 | 601-6764 | — |
| 9/16 | 14 | 601-6775 | Installed |
| 5/8 | 16 | 601-6769 | Included |
| 11/16 | 18 | 601-6770 | — |
| 3/4 | 20 | 601-6771 | — |

Number of
ROWS: 4-4-4

Number of
CUTTERS: 116



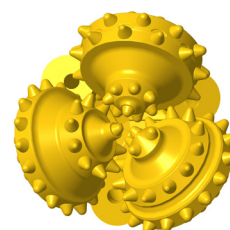
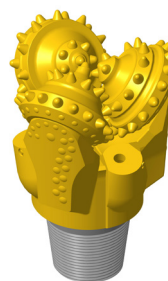
| Operating Parameters | |
|--------------------------|-----------------------------------|
| Weight on bit (WOB) | 25,000 to 53,000 lbs (111-235 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

9" (229 mm) Soft Formations Cat Tricone Drill Bits 593-8498

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 5-1-2 |
| Cutter shapes | Conical, Wedge and Round |
| Pin connection thread size | 4 1/2 API REG* with back flow valve |
| Approximate Weight | 110 lbs (50 kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 587-8488 | — |
| — | 13 | 587-8489 | — |
| 9/16 | 14 | 587-8486 | Included |
| 5/8 | 16 | 587-8487 | Installed |
| 11/16 | 18 | 587-8490 | Included |
| 3/4 | 20 | 587-8491 | — |
| 7/8 | 22 | 587-8492 | — |

Number of
ROWS: 4-1-2

Number of
CUTTERS: 88



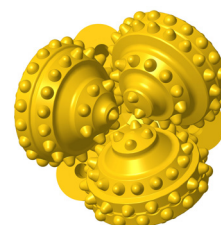
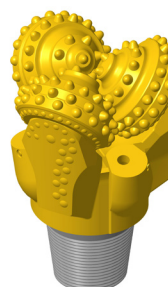
| Operating Parameters | |
|--------------------------|---------------------------------|
| Weight on bit (WOB) | 9,000 to 36,000 lbs (40-160 kN) |
| Rotary speed | 90 to 120 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

9" (229 mm) Medium Formations Cat Tricone Drill Bits 550-1616

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 6-3-2 |
| Cutter shapes | Conical, Ovoid, and Round |
| Pin connection thread size | 4 1/2 API REG* with back flow valve |
| Approximate Weight | 110 lbs (50 kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 587-8488 | — |
| — | 13 | 587-8489 | — |
| 9/16 | 14 | 587-8486 | Included |
| 5/8 | 16 | 587-8487 | Installed |
| 11/16 | 18 | 587-8490 | Included |
| 3/4 | 20 | 587-8491 | — |
| 7/8 | 22 | 587-8492 | — |

Number of
ROWS: 4-4-4

Number of
CUTTERS: 146



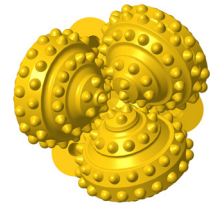
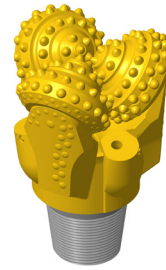
| Operating Parameters | |
|--------------------------|-----------------------------------|
| Weight on bit (WOB) | 27,000 to 54,000 lbs (120-240 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

9" (229 mm) Hard Formations Cat Tricone Drill Bits 550-1618

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 7-2-2 |
| Cutter shapes | Conical, Ovoid, and Round |
| Pin connection thread size | 4 1/2 API REG* with back flow valve |
| Approximate Weight | 110 lbs (50 kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 1/2 | 12 | 587-8488 | — |
| — | 13 | 587-8489 | — |
| 9/16 | 14 | 587-8486 | Included |
| 5/8 | 16 | 587-8487 | Installed |
| 11/16 | 18 | 587-8490 | Included |
| 3/4 | 20 | 587-8491 | — |
| 7/8 | 22 | 587-8492 | — |

Number of
ROWS: 5-5-4

Number of
CUTTERS: 166



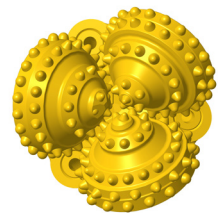
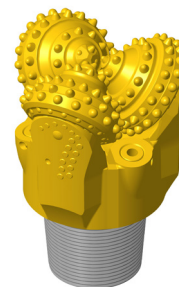
| Operating Parameters | |
|--------------------------|-----------------------------------|
| Weight on bit (WOB) | 36,000 to 63,000 lbs (160-280 kN) |
| Rotary speed | 60 to 90 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

9-7/8" (251 mm) Medium Formations Cat Tricone Drill Bits 533-7827

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 5-4-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 145 lbs (66 kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | Included |
| 5/8 | 16 | 587-8494 | Installed |
| 11/16 | 18 | 587-8495 | — |
| 11/16 | 20.5 | 587-8496 | Included |
| 15/16 | 23 | 587-8497 | — |
| 1 | 25 | 587-8498 | — |

Number of
ROWS: 4-4-4

Number of
CUTTERS: 121



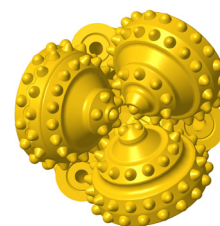
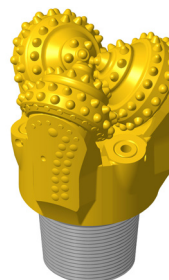
| Operating Parameters | |
|--------------------------|--------------------------------------|
| Weight on bit (WOB) | 20,000 to 50,000 lbs (88.9-222.4 kN) |
| Rotary speed | 60 to 120 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

9-7/8" (251 mm) Medium Formations Cat Tricone Drill Bits 580-5475

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 6-4-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 145 lbs (66 kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | Included |
| 5/8 | 16 | 587-8494 | Installed |
| 11/16 | 18 | 587-8495 | — |
| 11/16 | 20.5 | 587-8496 | Included |
| 15/16 | 23 | 587-8497 | — |
| 1 | 25 | 587-8498 | — |

Number of
ROWS: 5-4-4

Number of
CUTTERS: 154



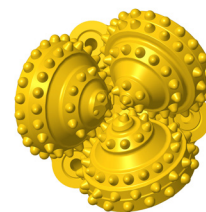
| Operating Parameters | |
|--------------------------|---------------------------------------|
| Weight on bit (WOB) | 30,000 to 60,000 lbs (133.4-266.8 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

9-7/8" (251 mm) Hard Formations Cat Tricone Drill Bits 543-1430

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 7-2-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 145 lbs (66 kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | Included |
| 5/8 | 16 | 587-8494 | Installed |
| 11/16 | 18 | 587-8495 | — |
| 11/16 | 20.5 | 587-8496 | Included |
| 15/16 | 23 | 587-8497 | — |
| 1 | 25 | 587-8498 | — |

Number of
ROWS: 5-5-4

Number of
CUTTERS: 178



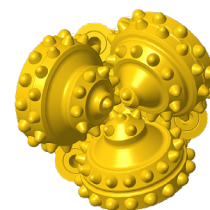
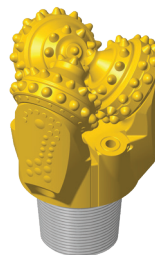
| Operating Parameters | |
|--------------------------|---------------------------------------|
| Weight on bit (WOB) | 40,000 to 90,000 lbs (177.0-400.3 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

10-5/8" (271 mm) Soft Formations Cat Tricone Drill Bits 596-7057

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 5-3-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 158 lbs (72 kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | — |
| 5/8 | 16 | 587-8494 | Included |
| 11/16 | 18 | 587-8495 | Installed |
| 3/4 | 20.5 | 587-8496 | Included |
| 15/16 | 23 | 587-8497 | — |
| 1 | 25 | 587-8498 | — |

Number of
ROWS: 4-4-4

Number of
CUTTERS: 115



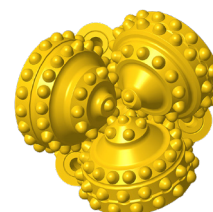
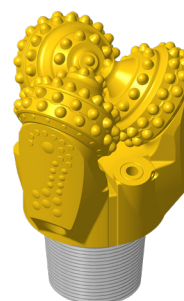
| Operating Parameters | |
|--------------------------|----------------------------------|
| Weight on bit (WOB) | 21,000 to 53,000 lbs (93-235 kN) |
| Rotary speed | 80 to 120 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

10-5/8" (271 mm) Medium Formations Cat Tricone Drill Bits 596-7059

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 6-4-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 158 lbs (72 kg) |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | — |
| 5/8 | 16 | 587-8494 | Included |
| 11/16 | 18 | 587-8495 | Installed |
| 3/4 | 20.5 | 587-8496 | Included |
| 15/16 | 23 | 587-8497 | — |
| 1 | 25 | 587-8498 | — |

Number of
ROWS: 5-4-4

Number of
CUTTERS: 150



| Operating Parameters | |
|--------------------------|-----------------------------------|
| Weight on bit (WOB) | 30,000 to 70,000 lbs (133-311 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

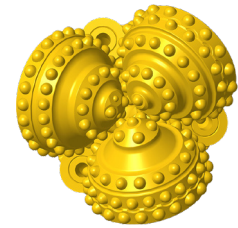
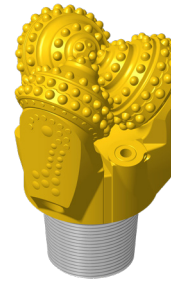
10-5/8" (271 mm) Hard Formations Cat Tricone Drill Bits 596-7060

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 7-2-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 158 lbs (72 kg) |

*Also available in BECO pin thread

| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | — |
| 5/8 | 16 | 587-8494 | Included |
| 11/16 | 18 | 587-8495 | Installed |
| 3/4 | 20.5 | 587-8496 | Included |
| 15/16 | 23 | 587-8497 | — |
| 1 | 25 | 587-8498 | — |



Number of
ROWS: 5-5-4

Number of
CUTTERS: 185



| Operating Parameters | |
|--------------------------|------------------------------------|
| Weight on bit (WOB) | 45,000 to 100,000 lbs (200-444 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

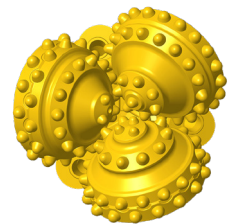
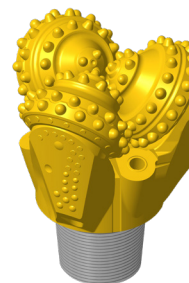
12-1/4" (311 mm) Medium Formations Cat Tricone Drill Bits 550-1620 API 558-9403 BECO

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 5-4-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 225 lbs (102 kg) |

*Also available in BECO pin thread

| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | — |
| 5/8 | 16 | 587-8494 | — |
| 11/16 | 18 | 587-8495 | Included |
| 3/4 | 20.5 | 587-8496 | — |
| 15/16 | 23 | 587-8497 | Included |
| 1 | 25 | 587-8498 | Installed |
| Replacement Pin | | 541-4671 | Included |



Number of
ROWS: 4-4-4

Number of
CUTTERS: 135



| Operating Parameters | |
|--------------------------|-----------------------------------|
| Weight on bit (WOB) | 30,000 to 70,000 lbs (200-444 kN) |
| Rotary speed | 60 to 120 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

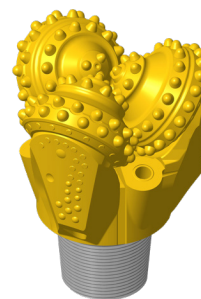
12-1/4" (311 mm) Medium Formations Cat Tricone Drill Bits 533-7830 API 558-9404 BECO

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 6-4-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 225 lbs (102 kg) |

*Also available in BECO pin thread

| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | — |
| 5/8 | 16 | 587-8494 | — |
| 11/16 | 18 | 587-8495 | Included |
| 3/4 | 20.5 | 587-8496 | — |
| 15/16 | 23 | 587-8497 | Included |
| 1 | 25 | 587-8498 | Installed |



Number of
ROWS: 5-4-4
Number of
CUTTERS: 164



| Operating Parameters | |
|--------------------------|---------------------------------------|
| Weight on bit (WOB) | 37,000 to 90,000 lbs (164.5-400.3 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

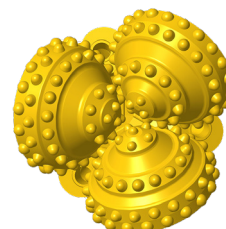
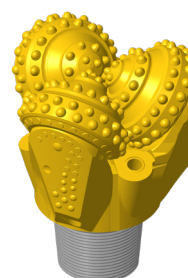
12-1/4" (311 mm) Hard Formations Cat Tricone Drill Bits 550-2360 API 558-9406 BECO

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 7-2-2 |
| Cutter shapes | Conical Compacts |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | 225 lbs (102 kg) |

*Also available in BECO pin thread

| Replacement Nozzle Options | | | |
|----------------------------|------|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 9/16 | 14 | 587-8493 | — |
| 5/8 | 16 | 587-8494 | — |
| 11/16 | 18 | 587-8495 | Included |
| 3/4 | 20.5 | 587-8496 | — |
| 15/16 | 23 | 587-8497 | Included |
| 1 | 25 | 587-8498 | Installed |



Number of
ROWS: 5-5-4
Number of
CUTTERS: 192



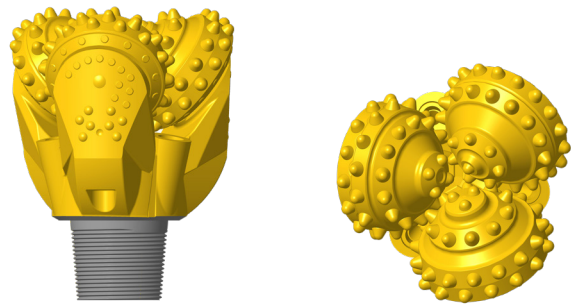
| Operating Parameters | |
|--------------------------|------------------------------------|
| Weight on bit (WOB) | 50,000 to 100,000 lbs (222-444 kN) |
| Rotary speed | 60 to 100 RPM |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |

13-3/4" (349 mm) Medium Formations Cat Tricone Drill Bits 604-8209

Ball Locked and Roller Bearing, Air-cooled | 3 Air jet nozzles

| Specifications | |
|----------------------------|-------------------------------------|
| IADC | 5-3-2 |
| Cutter shapes | Conical |
| Pin connection thread size | 6 5/8 API REG* with back flow valve |
| Approximate Weight | |

*Also available in BECO pin thread



| Replacement Nozzle Options | | | |
|----------------------------|-----|-------------|-----------|
| in. | mm. | Part Number | Notes |
| 3/4 | 20 | 602-0587 | — |
| 7/8 | 22 | 602-0588 | Included |
| 1 | 25 | 602-0589 | Installed |
| 1 1/8 | 28 | 602-0590 | Included |
| 1 1/4 | 32 | 602-0591 | -- |

Number of
ROWS: 4-4-4
Number of
CUTTERS: 130

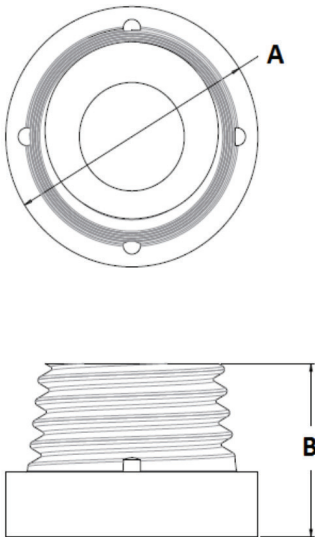


| Operating Parameters | |
|--------------------------|-------------------------|
| Weight on bit (WOB) | |
| Rotary speed | |
| Air back pressure on bit | 29-58 PSI (0.2-0.4 MPa) |



The **575-2275 Air Flow Tester** is intended for measuring air flow rates up to 3,000 CFM (85 m3/min) and for pressure up to 500 psi (3450 kPa). It is designed for measuring compressor air flow on drills, but could be used in other applications, as well.

This kit includes all components of the tester except for the BECO and API thread adapters, which are available for individual purchase. The carrying case provided with the kit has storage space for all tester components plus space for up to 3 thread adapters (with the exception of the 8" BECO).



| Drill String Thread Adapters | | | | | | | | |
|------------------------------|----------------------|------------|-----------|-------------|-------------|------------|------------|------------|
| Item | Description | 575-2276* | 575-2278 | 575-2279 | 575-2280 | 575-2281 | 575-2282 | 575-2283 |
| | Thread | 8" BECO | 6" BECO | 4-1/2" BECO | 3-1/2" BECO | 6-5/8" API | 4-1/2" API | 3-1/2" API |
| A | Diameter mm (in) | 216 (8.5) | 165 (6.5) | 152 (6.0) | | | | |
| B | Thickness mm (in) | 76 (3.0) | 102 (4.0) | | | | | |
| — | Weight kg (lbs) | 5.1 (11.2) | 4.2 (9.3) | 2.7 (6.0) | 2.0 (4.4) | 3.8 (8.4) | 2.7 (6.0) | 2.1 (4.6) |

*The 8" BECO Thread Adapter will not fit in the case that comes with the 575-2275 Air Flow Tester.

The **FT3567 Bit Air Pressure Tool** enables a quick check of the air pressure at the drill bit nozzles. This tool is primarily used for:

- setting the compressor regulators for pneumatic control systems, and/or
- double checking natural pressure drop from receiver tank port, through blow-air-hose/tube, rotary head assembly and drill string.

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