

**NORTON**

SAINT-GOBAIN

**QUANTUM X™**

CREEPFEE WHEELS

# Three Proprietary Technologies

Create the Ultimate Creepfeed Wheel

## Key Attributes:

- Proprietary, durable Vitrium 3 Bond Technology
- Norton Quantum Ceramic Abrasive
- Patented Pore-Induced Construction

## Key Applications:

- Heat-sensitive and difficult-to-grind alloys
- Large areas of contact



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AEROSPACE | ENERGY | AUTOMOTIVE

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## FEATURES & BENEFITS

- Norton-exclusive, synergistic engineering of three leading technologies produce the most free-cutting creepfeed wheel on the market today:
  - Vitrium 3: the newest, strongest bond in the Norton portfolio
  - Norton Quantum abrasive
  - Patented pore-induced construction
- Extremely versatile: for all low-, medium- and high-force applications
- Excel on hard-to-grind aerospace alloys and large areas of contact
- Exceptional form and corner-holding
- Best Metal Removal Rates vs. all other ceramic creepfeed wheels
- Reduce grinding cycle times up to 50%
- 20+-% less power draw
- Longest wheel life + fastest grind cycle = highest productivity

## BLANK STOCK AVAILABILITY

### Type 01 Straight Wheel

SIZE (D x T x H)	SPEC.	UF BLANK PART #
<b>Type 01 Straight</b>		
16" x 1" x 5"	3NQX60-C28VTX2	00310438575
	3NQX60-D28VTX2	00310425238
	3NQX60-E24VTX2	00310425239
16" x 3" x 5"	3NQX60-C28VTX2	00310438656
	3NQX60-D28VTX2	00310425240
	3NQX60-E24VTX2	00310425241
16" x 5" x 5"	3NQX60-D28VTX2	00310425242
	3NQX60-E24VTX2	00310425243
16" x 6" x 5"	3NQX60-C28VTX2	00310438657
20" x 1" x 8"	3NQX60-C28VTX2	00310438658
	3NQX60-D28VTX2	00310425244
	3NQX60-E24VTX2	00310425245
20" x 3" x 8"	3NQX60-C28VTX2	00310438659
	3NQX60-D28VTX2	00310425256
	3NQX60-E24VTX2	00310425257
20" x 5" x 8"	3NQX60-D28VTX2	00310425258
	3NQX60-E24VTX2	00310425259
20" x 6" x 8"	3NQX60-C28VTX2	00310438660

## BLANK STOCK FASTTRACK SERVICE

Norton Quantum X unfinished blank stock creepfeed wheels are available and can be altered to your dimensional requirements.

- Standard lead-time is 2 weeks
- Alteration Parameters:
  - Diameter may be altered up to 2" smaller than the original blank stock diameter
  - Thickness may be altered to 1/2 the original blank stock thickness
  - Hole may be altered to ≤ half the diameter of the finished wheel

## Case Study - Aerospace Alloy

<b>PRODUCTS:</b>	16" x 5.5" x 5" Norton Quantum X (3NQ60-E24VTX2) creepfeed wheel vs. 16" x 5.5" x 5" Incumbent ceramic creepfeed wheel	
<b>APPLICATION:</b>	Turbine blade root form	
<b>RESULTS:</b>	Norton Quantum X	Incumbent Ceramic
<b>TOTAL CYCLE TIME/PART:</b>	18 minutes, 20 seconds	31 minutes, 23 seconds
<b>COST SAVINGS:</b>	Norton Quantum X wheels will provide a 29% total cost per part savings and a 41% reduction in total cycle time.	

Use Norton diamond dressing/truing rolls, spindles, and systems to maximize the performance and life of these wheels. Contact your Norton representative for product recommendations.

## MADE-TO-ORDER AVAILABILITY

**Abrasives:** Norton Quantum 3NQX and 5NQX

**Grit Sizes:** 46, 60, 80, 100, and 120

**Grades / Structures:**

GRADE	C	D	E	F	G	H	I
STRUCTURE	28	24	20	16	16	16	16
		28	24	20	20	20	
			28	24	24		
				28			

**Typical Marking:** 3NQX60-D28VTX2 and 5NQX80-E24VTX2

**Dimensions:**

DIAMETER	THICKNESS	MINIMUM RIM THICKNESS
> 4.5" to 8"	3/8" to 3"	1"
> 8" to 10"	3/8" to 5"	1"
> 10" to 20"	3/8" to 6.5"	1"
> 20" to 24"	1/2" to 6"	1-1/2"
> 24" to 30"	3/4" to 2"	1-1/2"

Hole size must be ≤ half the diameter of the wheel.

**Wheel Types:** 01 Straight, 02 Cylinder, 05 Recessed One Side, 06 Straight Cup, 07 Recessed Two Sides, 13 Saucer, 37 Nut Inserted Cylinder, 38 Straight Hubbed One Side

**Wheel Speed:** Standard: 6,500 SFPM, Optional: 8,500 SFPM (with product management review and approval)

### BEST

NORTON Quantum X

### BETTER

NORTON Vortex 2

### GOOD

Defer to BETTER Product

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