

5

संस्थान क्रय विनीर्देश (सी एफ एफ पी) PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)		FF06033 Rev 08 पृष्ठ 1 of 5	
GRINDING WHEELS			
1. General This specification governs the technical requirement of Grinding Wheels for use in fettling of Steel Castings.			
2. Application The grinding wheel shall be used after fitting/mounting on portable pneumatic grinders (CPT or equivalents) and/or Swing Frame Grinder for large surface grinding in dry process. The castings to be ground shall be of various material grades such as Plain C steels, Low alloy steels containing Cr, Mo, V, 13Cr4Ni Stainless Steels and 9Cr 1 Mo steels. The cutting wheel mentioned at serial no 4.5 is meant for cutting fire clay refractory hollowares.			
3. Compliance with National Standard This specification is related to IS:2324 –1985 Reaffirmed 2014 For dimensions and shape IS:3300 –1980 Reaffirmed 2018 IS:8915 –1978 Reaffirmed 2018 Tolerance as per IS:13596 – 1993 Reaffirmed 2014 Safety requirements as per IS:1991 or EN12413			
4. Size and Shape and type of bonding			
SL. NO.	Type of Wheel	CFFP Material Code	Approved models
4.1	Straight Grinding Wheel (Resinoid Bonding)		
4.1.1	OD 40 mm X Thickness 20 mm x Bore 10 mm	FF6411499080	CUMI: A163R2BM4 Grindwell Norton: A20T38L4
4.1.2	OD 63 mm X Thickness 20 mm x Bore 10 mm * Tolerance on OD 63 : +0.5/-1	FF6411499071	CUMI: A163R2BM4 Grindwell Norton: A20T38L4 IGC Abrasives: ASTRA Rhino Abrasives: A20T3B3R
4.1.3	OD 100 mm X Thickness 25 mm x Bore 16 mm	FF6411499063	CUMI: A163R2BM4 Grindwell Norton: A16Q48L3 IGC Abrasives: ASTRA Rhino Abrasives: A16Q3B3R Excel Abrasives: A163R2BM4
SF	Shailendra Kumar	अनुवादक TRANSLATED	
RMI	Arun Agrawal	निर्माणकर्ता WORKED	L Agrawal
Chairman PSC	GM Verma	जांचकर्ता CHECKED	R Lakra
सहमत विभाग Agreed Deptt	नाम Name	दिनांक ऐवम हस्ताक्षर Date and Signature	अनुमोदित APPROVED Tushar Dave
		स्विकृति: संस्थान मानक समिति	
		APPROVED: PLANT STANDARDS COMMITTEE	
		निर्माण: PREPARED: FOUNDRY TECH	जारी: फाउंड्री प्रौद्योगिकी ISSUED: FOUNDRY TECHNOLOGY
			दिनांक DATE 3.6.2019



संस्थान क्रय विनीर्देश (सी एफ एफ पी)

PLANT PURCHASE SPECIFICATION

(CFFP - HARDWAR)

FF06033 Rev 08

पृष्ठ का
Page 2 of 5

संस्थान क्रय विनीर्देश (सी एफ एफ पी)

संस्थान क्रय विनीर्देश (सी एफ एफ पी)

संस्थान क्रय विनीर्देश (सी एफ एफ पी)

संस्थान क्रय विनीर्देश (सी एफ एफ पी)

संस्थान क्रय विनीर्देश (सी एफ एफ पी)

SL. NO.	Type of Wheel	CFFP Material Code	Approved Models
4.1.4	OD 150 mm X Thickness 25 mm x Bore 16 mm	FF6411499055	CUMI: A163R2BM4 Grindwell Norton: 44A201R6B SAK Abrasives: Topline Excel Abrasives: A163R2BM4
4.1.5	OD 400 mm X Thickness 63 mm X Bore 152.4 mm	FF6411499020	CUMI: A143R5BSN 821 Grindwell Norton: 44A14R3B
4.1.6	OD 500 mm X Thickness 75 mm x Bore 203.2 mm	FF6411499012	CUMI: A163R2BM4 Grindwell Norton: 44A16R3B or A16S3BL4 Rhino Abrasives: A16S3B3R IGC Abrasives:
4.1.7	OD 500 mm X Thickness 100 mm x Bore 305 mm		CUMI: A163R2BM4 Grindwell Norton: 44A16R3B
4.2	Straight Cup Grinding Wheel (Type 6 R-40, B20) Resinoid Bonding)		
4.2.1	OD 125 mm X Thickness 63 mm x Bore 16 mm	FF6418280024	CUMI: A163R2BM4 Grindwell Norton: A16R4BL4
4.3	Nut Inserted Wheel- Resinoid Bonded T5,B-26mm Bush Radius 22.5mm		
	OD 45 mm x Ht 60 mm x Nut M10 mm	FF6418299019	CUMI: A163R2BM4 Grindwell Norton: A16R4BL4 Rhino Abrasives: A16R3B3
4.4	Depressed Centre Wheel- Resinoid Bonded -Reinforced		
4.4.1	OD 230 mm x Thickness 3.0 mm x Bore 22.23 mm	FF6411498032	CUMI: HICUT - A24TBF (42HCT18032T) Grindwell Norton: A24T8B27R
4.4.2	OD 180 mm x Thickness 7.0 mm x Bore 22.23 mm	FF6411498024	CUMI: HICUT or HICUT Projects - A24TBF (27HCT18063T) Grindwell Norton: SPIT FIRES, Norton Champ A24RB Apidor Abrasives: ZEN GOLD IGC Abrasives: Jwala
4.5	Reinforced cut off wheel for refractories (This wheel is meant for cutting refractory holloware in foundry)		
	OD 400 mm x Thickness 3.0 mm x Bore 25.40 mm	FF6419903017	CUMI: C30 R5BFW Grindwell Norton: 37C24P6BL3R Rhino Abrasives: C24P6B3R2

निर्माजकर्ता
WORKED BY

Lavin Agrawal

जांचकर्ता
CHECKED BY

R Lakra

8/6/19
8/6/19

1000 PPT 1000 1000 PPT 1000 1000 PPT 1000		संस्थान क्रय विनीर्देश (सी एफ एफ पी) PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)	FF06033 Rev 08
			पृष्ठ का . Page 3 of 5

SL. NO.	Type of Wheel	CFFP Material Code	Approved Models
4.6	Straight Grinding Wheel- Vitrified		
4.6.1	OD 63 mm x Thickness 16 mm x bore dia 10 mm	FF6411253030	CUMI: AA46J5V8 Grindwell Norton: 38A60K5VBE Excel Abrasives: A6/54
4.6.2	OD 150 mm x Thickness 25 mm x bore dia 16 mm	FF6411253056	CUMI: AA46J5V8 Grindwell Norton: 38A60K5VBE Excel Abrasives: AA46J5V8, A6/54
4.7	Mounted Point: Vitrified		
	Shape A11, Spindle dia 6 mm	FF6411180024	Excel Abrasives Rhino Abrasives Grindwell Norton CUMI

COPYRIGHT AND CONFIDENTIAL
 The information in this document is the property of the organization and is to be kept confidential. It is not to be used for any other purpose without the written permission of the organization.

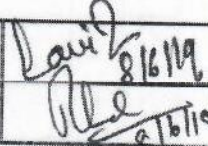
5. Shelf Life

The Resinoid bonded wheels shall have minimum Shelf Life of 2 years from date of despatch. For Vitrified type wheels there shall be no Shelf Life.

6. Test and Acceptance

For established suppliers, the material shall be accepted on the basis of Test and Guarantee Certificates. During technical evaluation of tender enquiry, vendor will have to confirm that the model offered is same as that mentioned against individual types of wheels mentioned in Clause 4. For those cases where the model number is not mentioned, vendor will have to confirm that the offered model is same as that previously supplied and accepted at CFFP.

For new vendors or vendors offering new model of grinding wheels, shop trial at technical evaluation stage shall be additional requirement. For this purpose, 2 Nos. wheels of the type asked for should be supplied free of cost alongwith submission of techno-commercial bid. The wheel shall be used for shop trial at CFFP and technical suitability of the wheel shall be judged based on shop trial.

1000 PPT 1000 1000 PPT 1000 1000 PPT 1000	निर्माणकर्ता WORKED BY	Lavin Agrawal	
	जांचकर्ता CHECKED BY	R Lakra	



संस्थान क्रय विनीर्देश (सी एफ एफ पी)

PLANT PURCHASE SPECIFICATION

(CFFP - HARDWAR)

FF06033 Rev 08

पृष्ठ का
Page 4 of 5

7. Marking

All the grinding wheels shall be marked individually for safe operating speed, date of expiry of shelf life (in case of Resinoid bonded wheel) and grade. In case of wheels are of small size such as mounted point wheels, marking on individual wheels can be left out, however, detailed marking on the box should be given indicating safe operating speed, date of expiry and grade (if applicable).

8. Inspection, Deviation and Replacement

8.1. BHEL reserves the right to inspect material at site before despatch. The supplier shall intimate in advance enclosing a copy of test certificate of the material offered for inspection. However, inspection at BHEL shall be final. The supplier shall offer BHEL representative all reasonable test facilities without charge to satisfy the latter that the material is being furnished in accordance with this specification. The supplier shall prepare and provide necessary test specimens for testing to be carried out at his premises. If facilities are not available at his works, the supplier shall make necessary arrangements for carrying out the prescribed test elsewhere.

8.2. If the material received is not found in accordance with the requirements, it shall be rejected and the supplier will have to replace it free of cost at the earliest.

9. Test Certificates:

9.1 Unless otherwise stated one original and three copies of original manufacturer's test certificates shall be supplied along with each consignment giving following information. In order to facilitate quick clearance of material, the supplier shall ensure to send a copy of test certificate along with despatch document.

9.2 Suppliers other than the original manufacturer shall ensure providing original manufacturer's test certificates with linkage to trader's invoice stating the batch No/lot No., etc. of the supply.

9.3 The test certificates should have at least the following details:

BHEL PO No.
Grinding Wheel Details
Manufacturer's Name/ Trade marking if any
Date of Expiry

10. Packing

The grinding wheels shall be suitably packed to avoid any damage in transit and storage. The packing is to be of the original manufacturer's. The packing should bear the details such as supplier's name and trade mark, if any; Name of product, Date of manufacturing, Shelf life, Batch No.

निर्माणकर्ता
WORKED BY

Lavin Agrawal

जांचकर्ता
CHECKED BY

R Lakra

8/16/19
8/16/19

①

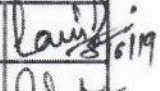
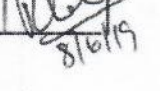
Date of Issue Date of Revision Date of Approval		संस्थान क्रय विनीर्देश (सी एफ एफ पी) PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)	FF06033 Rev 08
			पृष्ठ का Page 5 of 5

मूल्यांकन मूल्यांकन मूल्यांकन	REVISION RECORD SHEET
-------------------------------------	------------------------------

REV	NATURE OF CHANGES	SHEET NO.	SIGN	DATE
02	1. Specification prepared in new format. 2. Specification number sequence updated. 3. Grades for Grindwell Norton Ltd. updated. 4. Details of Depressed Centre Wheel and Mounted Point Wheel introduced.	Whole Doc. Do Page 1&2 Page 2		06/08/2004
03	Equivalent grades for M/s SAK Abrasives introduced. Tolerance on $\phi 63$ wheel introduced. Purpose of $\phi 400$ wheel mentioned Spindle dia for mounted point wheel revised.	Page 1-2 Cl. 4.1/2 Page 1 Cl. 4.4/3 page 2 Cl. 4.6 page 2		10/2/06
04	Grades for Depressed centre wheel for M/s Carborundum added	Cl. 4.4 Page 2		21.3.07
05	Grades of Refractory cutting wheel revised	Cl. 4.4 Page 2		14.5.07
06	Clause 9 & 10 modified	Cl. 9 & 10		17.8.09
07	Grades for M/s Apidor added. Grades of M/s Sak Abrasive removed.	4.0		10/1/2014
08	Clause 4 updated for including models which have been used in shop floor. Clause 2, 3, 6 and 7 modified.	1, 2, 3		08/6/2019

DISTRIBUTION OF PRINTS				
RMI				

Date of Issue Date of Revision Date of Approval	STANDARD SECTION SF & LF
---	---------------------------------

निर्माणकर्ता WORKED BY जांचकर्ता CHECKED BY	Lavin Agrawal R Lakra	 
--	--------------------------	--