## **APPLICATION GUIDE**

## **ChipCHECK-CFM56**

The ChipCHECK alloy naming convention follows SAE standards which may differ from the manual. This application guide is a cross reference between the ChipCHECK report and the CFM56. Reference: CFM56\_00\_NDTM\_REV-79-00-00-200-009



	ChipCHECK	CFM56
	1010	N/A to this engine type
	8740	AISI 8620 (20NCD2)
	4130 <b>1</b>	AISI 4130 (30CD4) or AISI 4140H (40CD4)
	52100	N/A to this engine type
	15CDV6 (AIR)	VASCOJET90 (15CDV6)
	4340	AISI 4340 (E-40NCD7)*
	32CDV13 (AIR) / 30CD12 (AIR) / S-7 (AISI) <sup>2</sup>	GK3 (30CD12) or GH4 (40CDV12) or CH4 (E40CDV12) or 32CDV13* or E-Z20WC10 RBD MODIFIED*
	Nitralloy 135 Mod	AISI 9310 (16NCD13)
	9310 <sup>2</sup>	AISI 9315 (16NCD13) or 9310 (16NCD13) or 30NCD16 or SAE 3316 (12NC12)
	35NCD16 (AIR)	35NCD16
	Nitralloy N	N/A to this engine type
Fe Base	H-13	N/A to this engine type
	6308	N/A to this engine type
	M50	M50 (E-80DCV40)*
	400 Series <sup>1</sup>	AISI 410 (Z12C13) or Z180CDW13 or Z15CN17
	M50Nil	M50Nil (13DCNV40)*
	Jethete M152 (P)	JETHETE M152 (Z12CNDV12)
	15-5PH / 17-4PH	17-4PH (Z5CNU17)
	AM-350	N/A to this engine type
	17-7 PH	N/A to this engine type
	300 Series <sup>1</sup>	AISI 321 (Z6CNT18) or AMS 5519 or AMS 5516 or Z12CN18
	Maraging 250 (P) <sup>1</sup>	Maraging 250 (Z2NKDT 18-8-5) or Maraging 300 (Z2NKDT 18-9-5)
	Alloy No. 42 (P)	N/A to this engine type
	A1109 No. 42 (F)	A286 Modified or A286
	ALNICO 5 (P)	ALNICO5
Al Base		
	6061	N/A to this engine type
	2024	N/A to this engine type
	2219	N/A to this engine type
	2618	(AU2GN)
	C355.0 / 356.0 / 357.0	A357 (AS7G06)
	7075	N/A to this engine type
Ni Base	Waspalloy	N/A to this engine type
	Inconel 718	INCO 718 (NC19FeNb)
	Hastelloy X	Hastelloy-X
	Inconel 625	N/A to this engine type
	Inconel X750	N/A to this engine type
	Nickel	Nickel
	Ti 6-4	TITANIUM (TA6V)
Base	Ti 6-2-4-6	
		N/A to this engine type
Cu Base	Copper <sup>1</sup>	UA10N BRONZO ALUMINUM NC4 or BRONZE SILICIUM (US3ZFe) or UE9P
	CDA443 (CDA)	N/A to this engine type
Co Base	L-605	N/A to this engine type
	Elgiloy	N/A to this engine type
g Base	Silver <sup>3</sup>	Silver, Aq
nclassified		Non-metallic or metallics other than Fe, Ni, Al, Ti, Cu, Ag, Co

Material and size are not the only criteria; consideration of the shape, engine parameters (oil delta pressure, oil consumption, vibration, engine maintenance history, chips count evolution) must be taken into account to provide accurate final recommendation according to AMM.

## If you have any questions, please contact <a href="mailto:support@gastops.com">support@gastops.com</a>



Disclaimer: The analyzed wear debris is reported by ChipCHECK as the nearest matched alloy classification per ASTM D8182-18. Any analyzed wear debris that could not be classified by ChipCHECK is reported as "Unclassified". Note that unclassified results do not necessarily constitute that the sample is in absence of the materials included in the configured material library. An unclassified result may be due to an inadequate spectra collected from the particles, which can be mitigated by following the procedures outlined in the user manual. All results reported by ChipCHECK are subject to the proper use, operation, and maintenance of the device in compliance with the defined requirements in user manual C009802.

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 $<sup>{\</sup>color{red}1}$ To distinguish between grouped materials, refer to chemical weight percentage and NDTM Part 9.

<sup>&</sup>lt;sup>2</sup>Material needs to be sent to an approved laboratory for confirmation of bearing or gearshaft material.

 $<sup>^{\</sup>mathbf{3}}$ If silver is magnetic, send to an approved laboratory for confirmation of magnetic nature.