Walsin

SPECIAL MELTED PRODUCTS

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Company Introduction

In 1842, **Special Melted Products (SMP)** began with metallurgical roots in **Sheffield, UK** - the birthplace of stainless steel, and is a global leader of speciality steel and nickel-based superalloys for use in the aerospace industry and notably for **critical rotating mainline engine shafts**. SMP produces ingots, blooms, billets, forged bars, semi-finished shafts, and engineered products. In 2023, SMP became **part of the Walsin Lihwa Group** allowing the company to leverage an integrated manufacturing platform, a wide range of quality products, and a global support network.

SMP is a trusted supplier of high integrity alloys for aerospace and defense applications. In addition to the **AS9100D certification** and **NADCAP accreditation**, SMP also maintains **OEM accreditation** for products requiring custom specifications. SMP's capabilities include primary VIM and VIDP melting, VAR and ESR remelting, radial and press forging, heat treatment, machining, non-destructive testing, and advanced inspection. SMP delivers complete engineered solutions as a single source supplier for leading aerospace OEMs and supply chain partners.

Aerospace Differentiators

Metallurgical Heritage
More than 180 years of materials expertise supporting critical applications, including aerospace

Vertically Integrated Manufacturing
Seamless coordination from melting to semi-finished products under one company

Technical Expertise & In-House R&D
Dedicated metallurgical knowledge supporting qualification and application development

Global Aerospace Supply
Supporting leading aerospace OEMs and supply chain partners worldwide

Trusted Quality & Industry Accreditations
Extensive customer approvals and aerospace qualifications supporting critical applications

Passionate People & Partnerships
Dedicated teams fostering long-term customer relationships through expertise and collaboration

Capabilities & Products

Primary Melting
- 3x VIMs (500 kg to 18t) (1)
- 1x VIDP (6t)

Forging & Processing
- 1x Forging Press (7kt) (1)
- 1x GFM SXP-65 Radial Forge

Secondary Remelting
- 7x VARs (up to 20t) (1)
- 4x ESRs (up to 20t) (1)

Precision Machining
- Deep Hole Boring (up to 10m)
- Lathe Turning (up to 10m) with Live Tooling Capability
- Large Capacity CNC Lathe (up to 1m diameter)

▲ Ingots & Blooms

▲ Billets & Forged Bars

▲ Semi-finished Shafts

▲ Fully Machined Engineered Components

Qualification & Certifications

ISO 9001:2015

AS9100D CERTIFIED

Nadcap Administered by PRI ACCREDITED (2)

AEROSPACE PORTFOLIO

SPECIAL MELTED PRODUCTS

Key Grades

Steel Family	AMS	AISI	W. Nr. [3]	UNS
Austenitic	5639	304	1.4301	S30400
	5647	304L	1.4307	S30403
	5648	316	1.4401	S31600
	5653	316L	1.4404	S31603
Martensitic	5613	410	1.4006	S41000
	5612	XM-30	1.4024	S41040
	5628	431	1.4057	S43100
Precipitation Hardening	5659	15-5PH	1.4545	S15500
	5643 5622	17-4PH	1.4542	S17400
	5629 5934	13-8PH	1.4534	S13800
	5731 5732	660 A286	1.4980 1.4944	S66286
	5936	C465		S46500
Maraging Steel	6512	C250	1.6359	K92890
	6514	C300	1.6358	K93120
	6515	C350	1.6356	K93160
Bearing Steel	5630	440C	1.4125	S44004
	6278	M50NIL	1.3559	K91231
	6490 6491	M50	1.3551	T11350
		H18		T20818
		H21		T20821

Steel Family	AMS	AISI	W. Nr. [3]	UNS
Low Alloy Steel	6414 6415	4340	1.6582	G43400
	6265	9310	1.6657	G93100
	6411	4330	1.6565	K23080
	6417 6419	300M	1.6928	K44220
		HCM3 [4] SCMV [4] PWA36280 [5]		
		CMV [4]		
		HCM5 [4] HYKRO [4]		
	6308	X53		K42544
	6481	E32CDV13		K24340
Nickel Alloy	5662 5663	718 DM/TM [6]	2.4668	N07718
	5441	718 Plus		N07818
	5706 5707	Waspaloy®	2.4654	N07001
	5666	625	2.4856	N06625
		716		N07716
		720		N07720
	5872 5886	C263	2.4650	N07263
		907		N19907
		909		N19909
		PE16		N07016
	5712 5713	Rene41	2.4973	N07041
	5803	Rene65		N07065

Product Dimensions

Form	Diameter (mm)		Length (m)		Weight (tonne)	
	Min	Max	Min	Max	Min	Max
Ingots & Blooms [7]	406	660	2	4	2	10
Billets & Forged Bars [8]	95	355	3	10	1.5	7.5
Semi-finished Products	90	1,000	2	6	N/A	N/A

Notes: (1) Includes equipment commissioned by 2028; (2) Heat Treating, NonDestructive Testing, and Materials Testing Laboratories; (3) Werkstoffnummer (German Material Number); (4) Rolls-Royce; (5) Pratt & Whitney; (6) Double Melted/Triple Melted; (7) Standard ingot sizes include 406 mm, 508 mm, 610 mm, and 660 mm; (8) Cross-section may be rectangular or square

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COGNE — Website | Brochure

DMV — Website | Brochure

AML — Website | Brochure