

# The Case For A 15,000Tonne Open Die Forging Press

Materials Supply Chain for UK Power Generation



## **Outline**

- Company & Employees
- Performance & Markets
- Investments
- World Demand
- Future Direction
- Funding Support



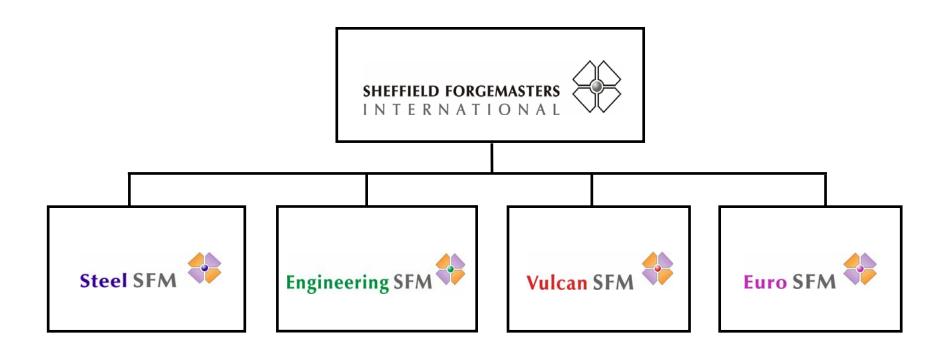


## **Company & Employees**





#### **Group Structure**







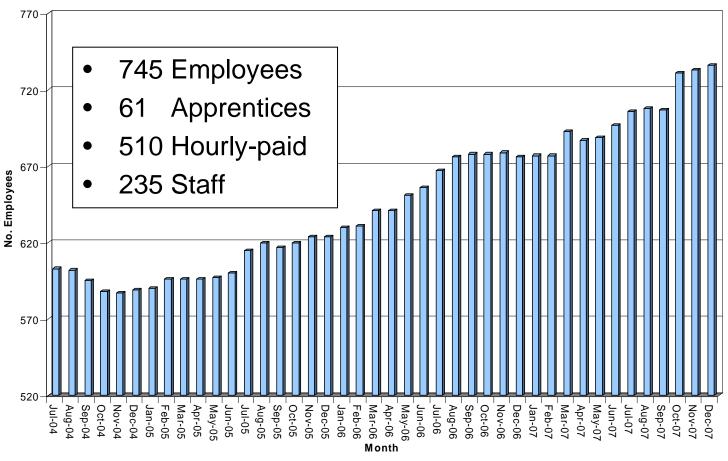
#### **Current Shareholders**

Shareholders	Holding
SFIL Management and Workforce	100%





#### **Total Employees**





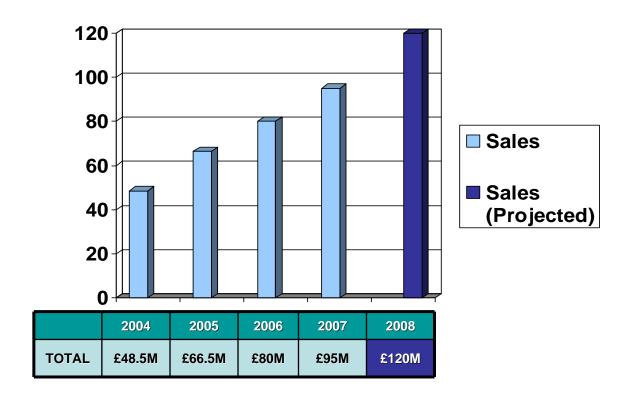


## **Performance & Markets**





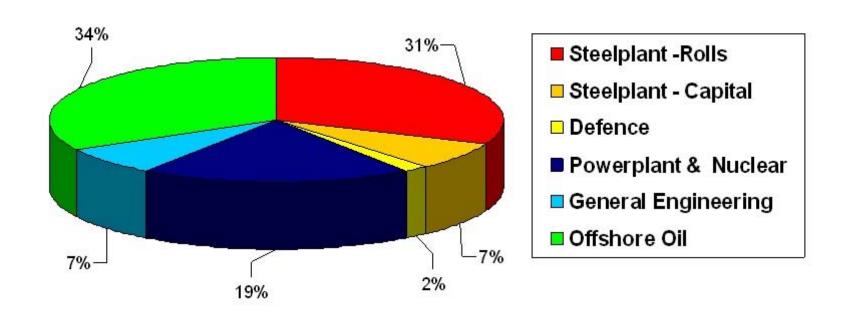
#### **Total Sales**







#### **Current Sales by Product**



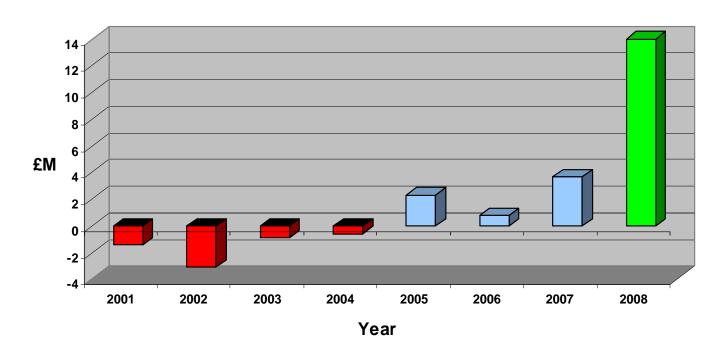




### **Serving a Worldwide Business**



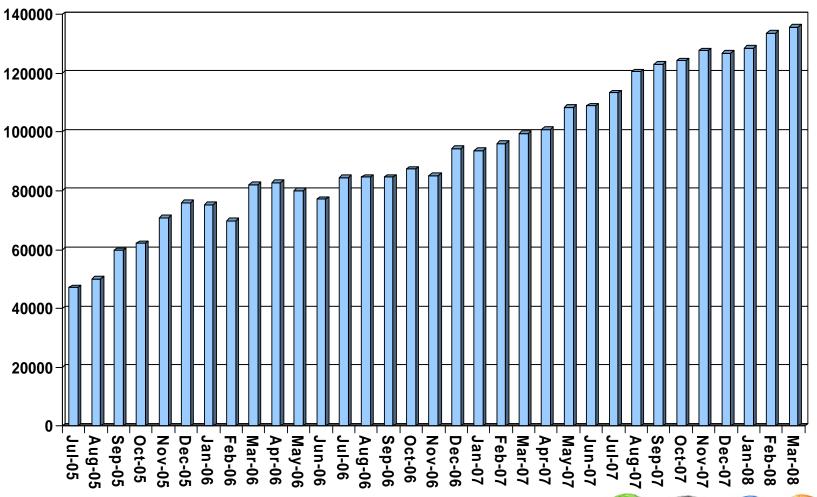
### **Operating Profit/Loss**







#### **External Order Book**







## **Investments**





#### **Total Investment 2006/08**

Business Unit	£K
Steel SFM	1769
Engineering SFM	9669
Vulcan SFM	11125
Total Investment	22563

**SFIL Has Invested More In the last 12 Months Than In The Previous Decade** 



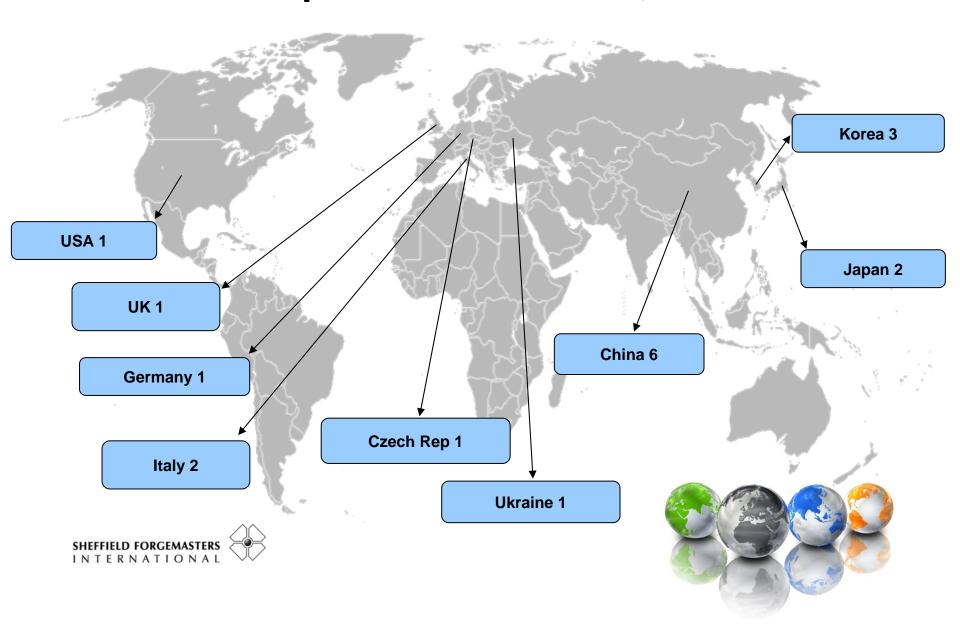


## **World Demand**

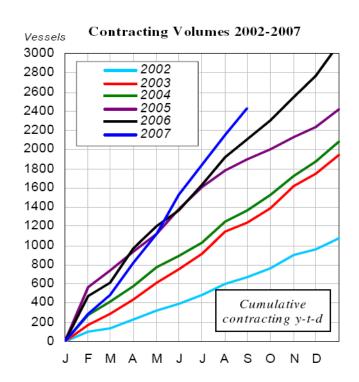




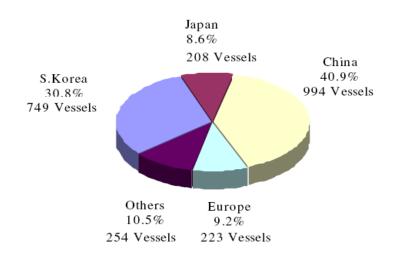
#### **New & Proposed Presses >10,000 tonnes**



#### **Shipbuilding**



#### Contracting by Builder Country in Vessels, 2007







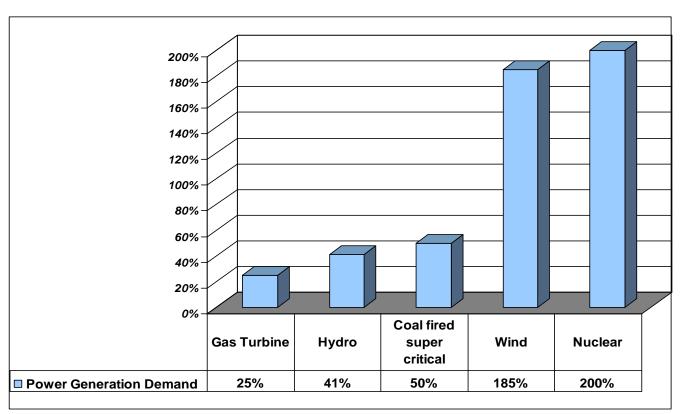
### **Backup Roll Weights**







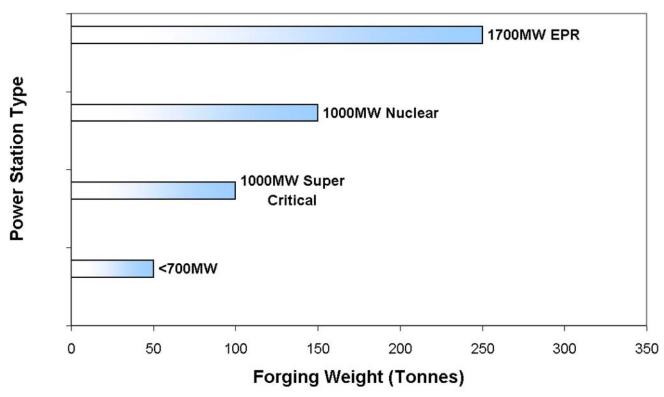
## Increase In Power Generation New Build 2007/11(base date 2002/06)







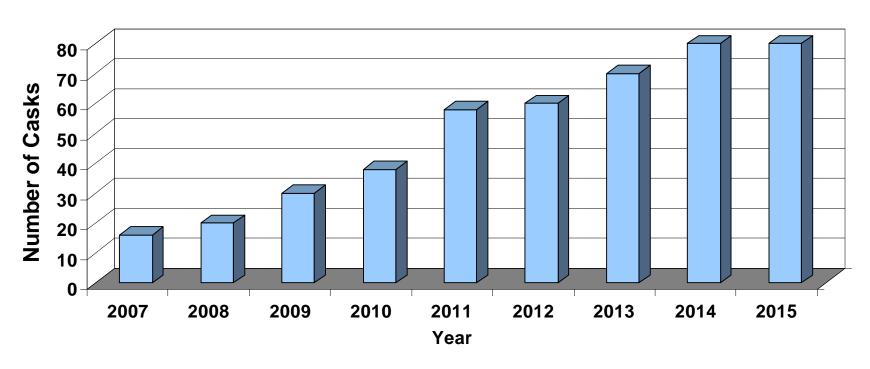
### **Generator Rotor Weights**







## Demand For New Casks For High-Level Waste Transport Casks Type B

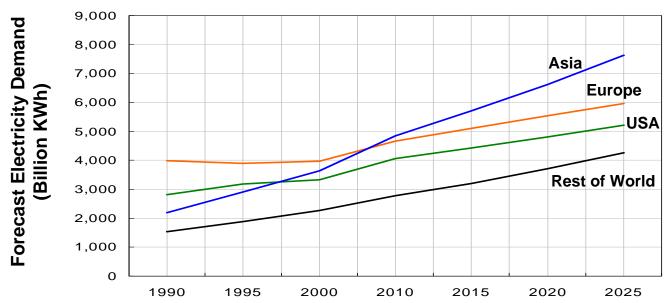






#### **Nuclear Renaissance**

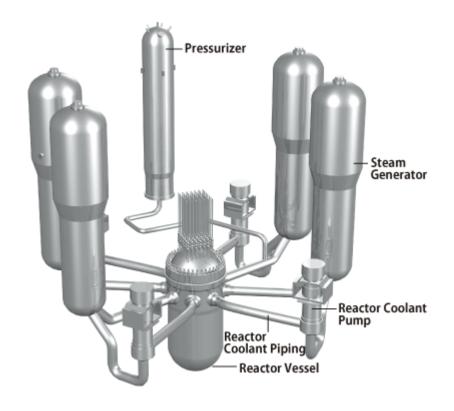
#### Growing demand for clean, safe electricity





Source: EIA Annual Energy Outlook 2004





Nuclear Reactor – Core Components



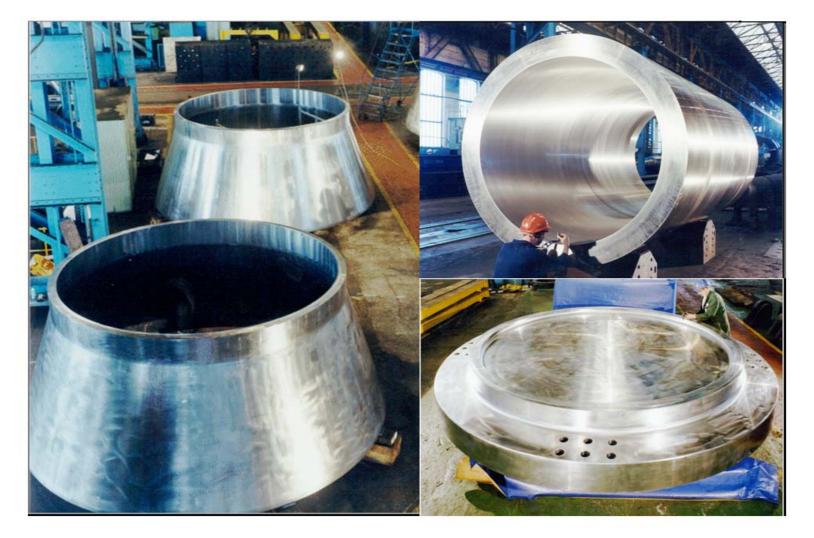




#### Nuclear Reactor Pressure Vessel







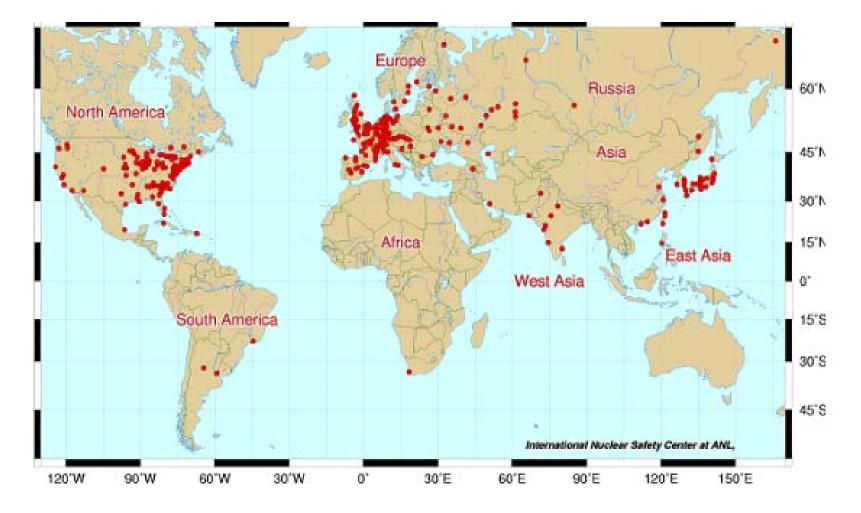
Forged Steel Nuclear Vessel Components





Nuclear Vessel Components in Forging

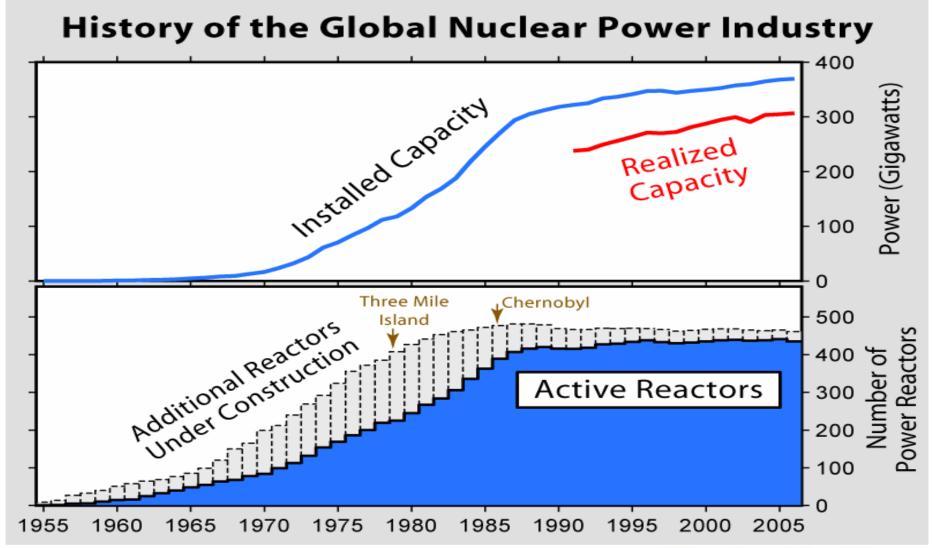




Global use of Nuclear Power



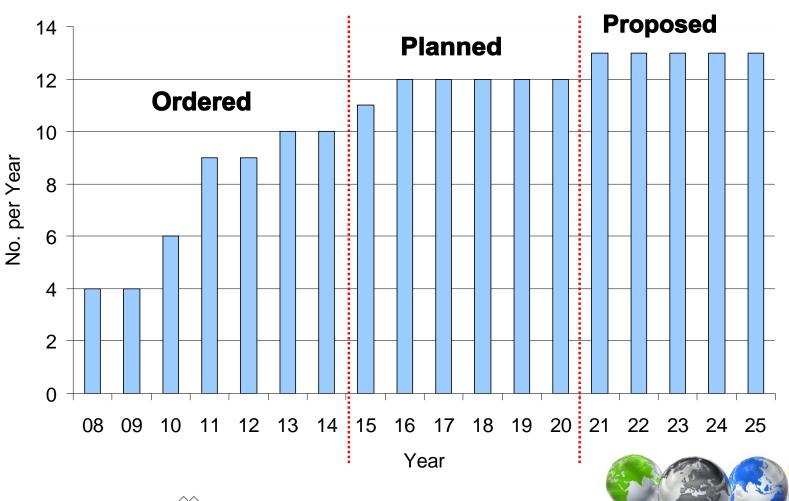






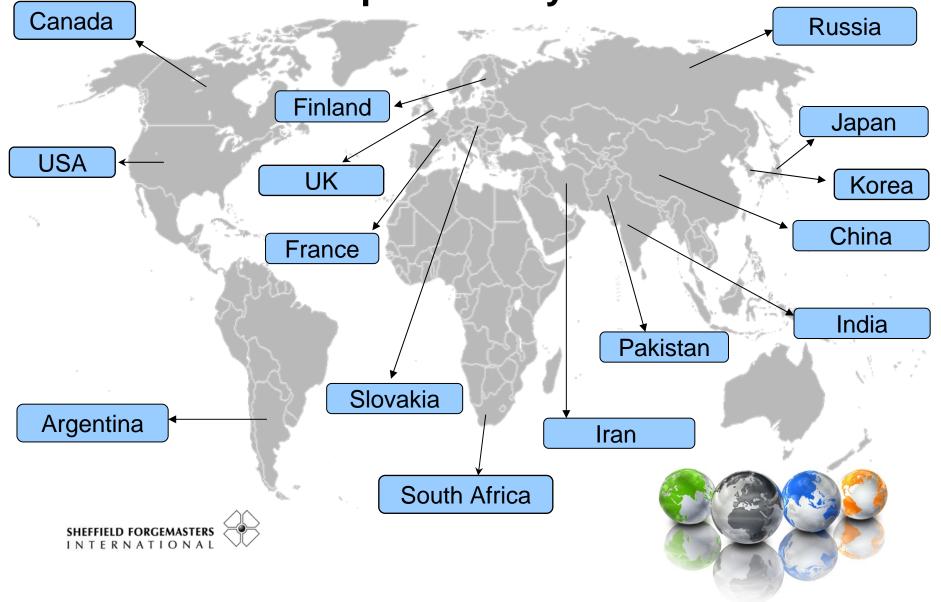


#### **Plans For New Reactors Worldwide**

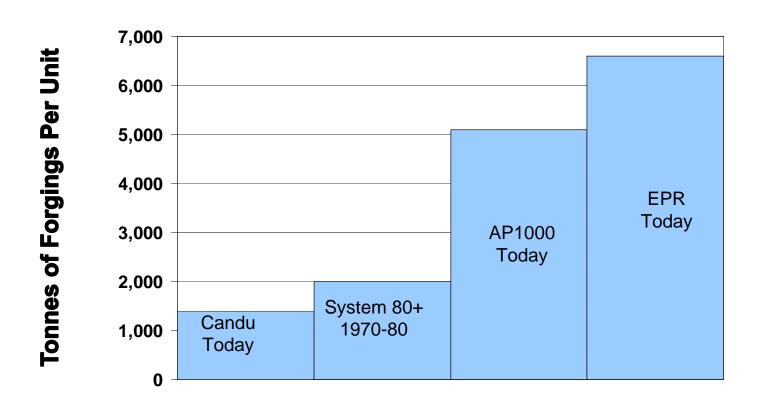




Location Of New And Proposed Nuclear Build In Operation By 2025



### **Forging Demand Per Reactor Type**





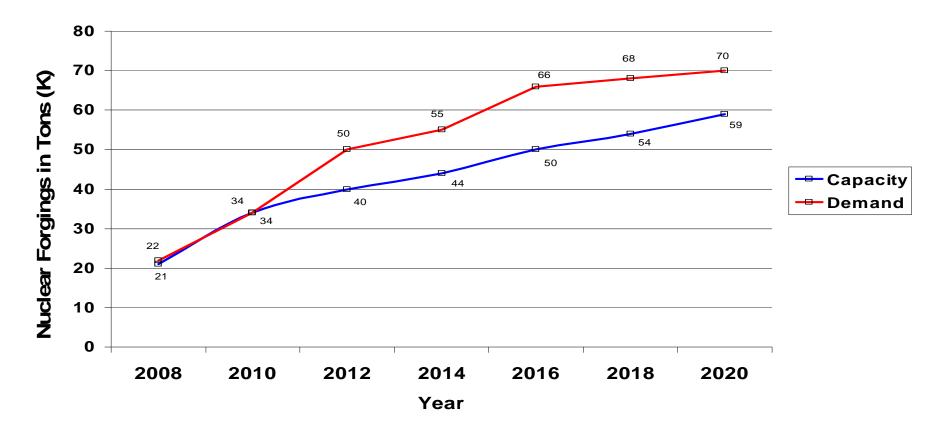


## Major Nuclear Forges

		Mx Ingot	Press (tonnes)
•	Japan Steelworks	600t	14,000
	Creusot (France)	250t	11,300
•	OMZ (Russia)	360t	12,000
•	Sheffield Forgemasters (UK)	300t	10,000
•	Doosan (S. Korea)	540t	10,000





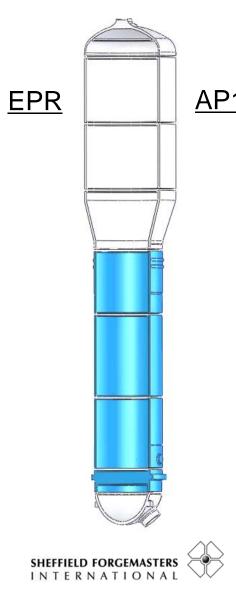


 Capacity and Demand for Heavy Nuclear Forgings





### **Steam Generator Components (SG)**

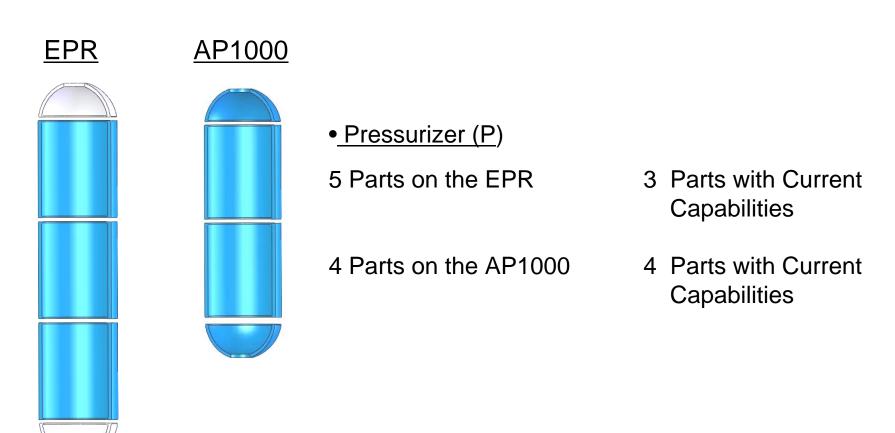


AP1000

- Steam Generator (SG)
- 9 Parts on the EPR(4 per installation)
- 9 Parts on the AP1000 (4 per installation)
- 4 Parts with Current Capabilities
- 4 Parts with Current Capabilities



### **Pressurizer Components (P)**

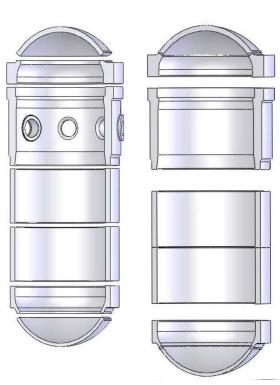






## Reactor Pressure Vessel Components (RPV)





Reactor Pressure Vessel (RPV)

7 Parts on the EPR (1 per installation)

4 Parts on the AP1000 (1 per installation)

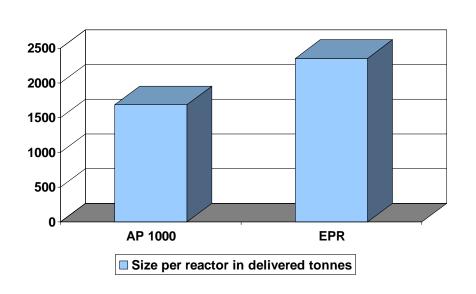
0 Parts with Current Capabilities

0 Parts with Current Capabilities





# Assembled Forging Weight Per Reactor Type



#### SFIL can cover today:

- ✓ 26 % of AP 1000
- ✓ 44% of EPR

If 5+5 UK programme:
Total expected demand
= 20225 tonnes

#### SFIL can cover:

√ 34% of total demand





## **Future Direction**





# Proposed Investment at SFIL To Support The UK Nuclear Program

#### Investment – Melt Shop

Equipment	£K
Secondary Steelmaking Unit	6000
High bay extension	2000
New Vacuum Tank	750
500Tonne Crane	2000
Ladle Processing Facility	1000
Ironware and Ladles	1000
Power and Transformers	2000
Total	14750





# Proposed Investment at SFIL To Support The UK Nuclear Program

#### Investment – Forge

Equipment	£K
15000 Tonne Press	10000
Forge and HT Building	6000
Electrical Supplies	2000
Civil Works	2000
2x Forge Furnaces	3000
6x HT Furnaces	4000
2x Class 8 Forging Cranes	3000
Quench Tank	1000
Forge Manipulator	2000
Forge Tooling	2000
2x HT Cranes	1000
Total	36000





## Proposed Investment at SFIL To Support The UK Nuclear Program

#### Investment – Machining

Equipment	£K
Building	4000
3x Vertical Boring Mills	7000
2x Lathes	6000
Various Equipment	2000
Total	19000





## **Expected Outputs From Proposed Investment at SFIL**

Output	Impact
New Jobs created	120 (direct) 80 (indirect)
Safeguarded Jobs	750
New Sales (Domestic)	£230M
Safeguarded Sales	£120M/y
UK Nuclear Program Build Schedule	Underpinned





## **Funding Options**





#### **Funding Support**

#### Source

Private Equity

**Trade Partners** 

Banks

Government



