

PLATINUM

MANUFACTURING PROCESS

VOLUME VII



1999 Platinum Day Symposium • Los Angeles
PLATINUM GUILD INTERNATIONAL USA

AREAS OF CONCERN

MASTER PATTERN

DESIGN

SPRUE

INVESTING

CHEMICAL SET

SEDIMENTARY

CRUCIBLES

CASTING EQUIPMENT

PAST

NEXT GENERATION

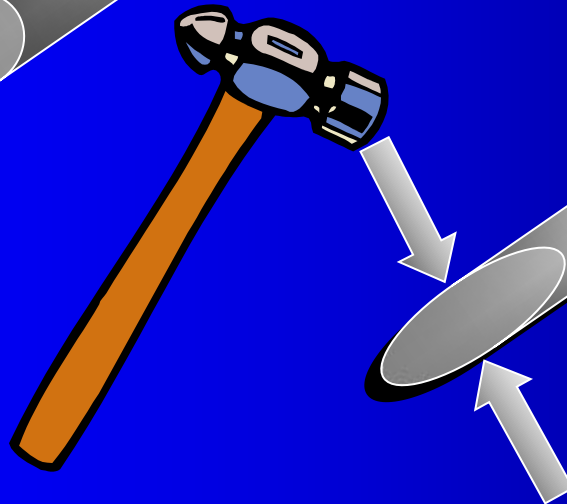
The current focus of article is
to help small jewelry stores
and tradeshops to cast
Platinum with a minimal
amount of startup cost and the
need for additonal equipment.

SPECIFIC GRAVITY OF COMMON PLATINUM ALLOYS

950 PT / 50 Co	20.8
950 Pt / 50 Ru	20.65
950 Pt / 50 Cu	20.0
950 Pt / 50 Ir	21.5
950 Pt / 50 Pd	20.6
900 Pt / 100 Ir	21.5

FLARED SPRUES

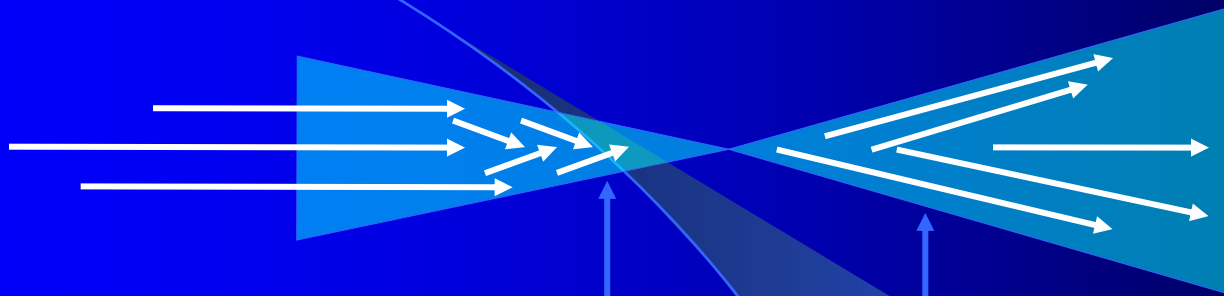
DO NOT FILE



DO HAMMER OR ROLL



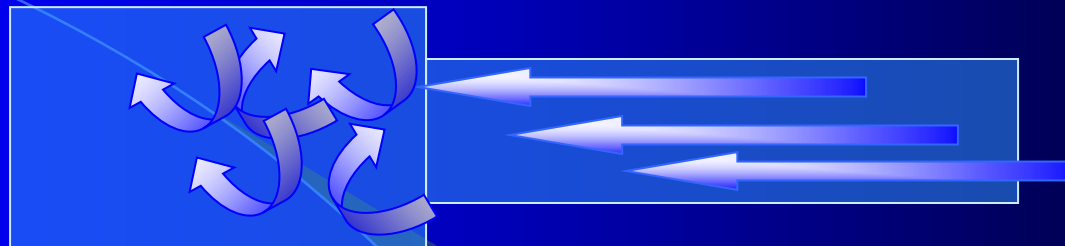
VENTURI EFFECT



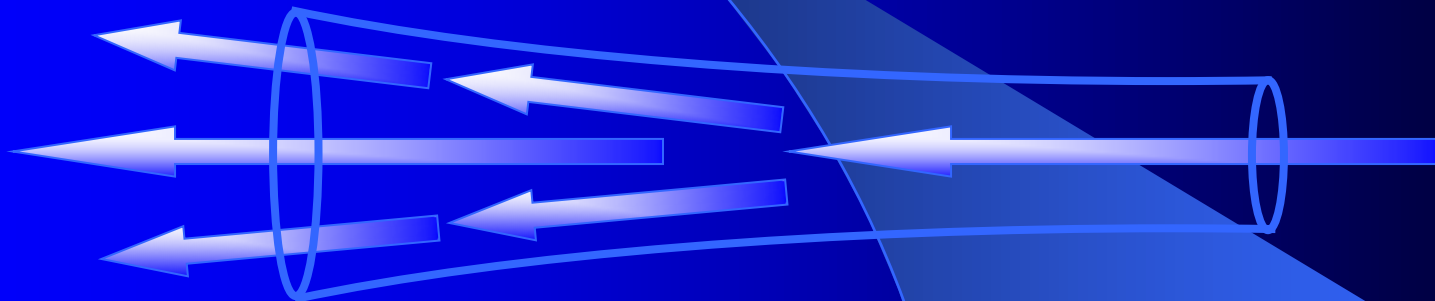
COMPRESSION

METAL SPRAY

TURBULENCE

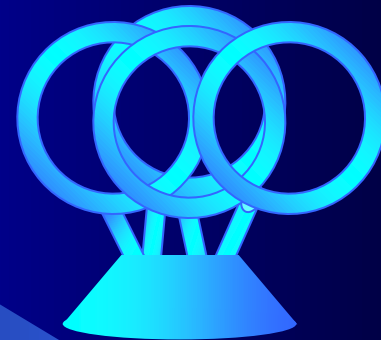
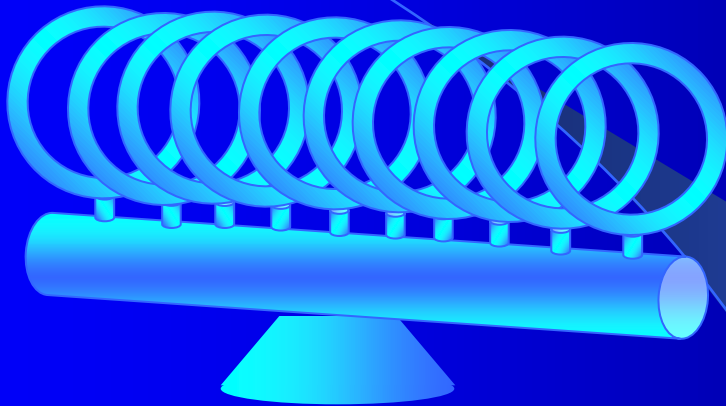


WITHOUT FLARE

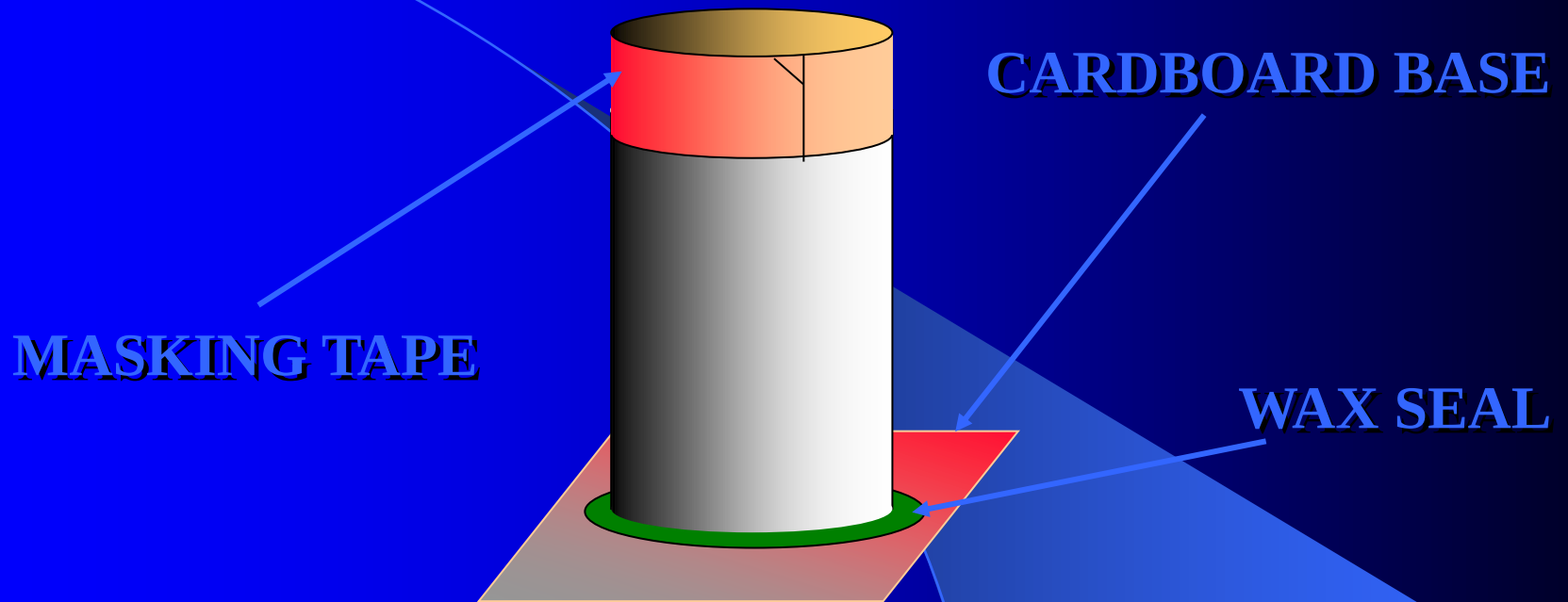


WITH FLARE

TYPICAL PLATINUM TREES FOR CENTRIFUGAL CASTING



PLATINUM FLASK PREPARED FOR INVESTING



VYLNE FLASK



INVESTED FLASK



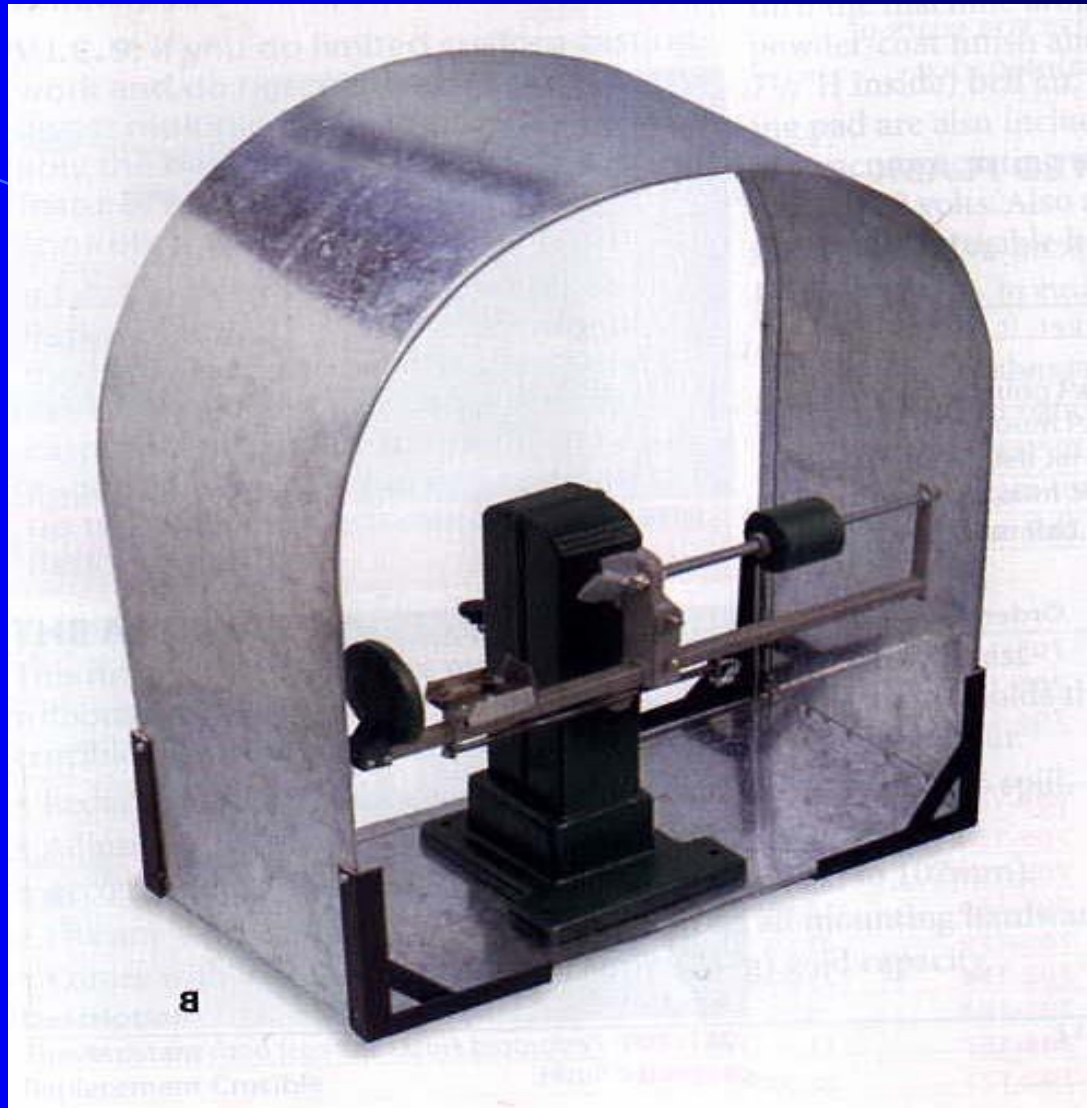
Devest



Whip mix



VERTICAL CASTER



HORIZONTAL SPRING CENTRIFUGAL



MORTORIZED HORIZONTAL



CENTRIFUGAL/VACUUM ASSISTED/INDUCTION MELT



NUETROMAG INDUCTION



VPC



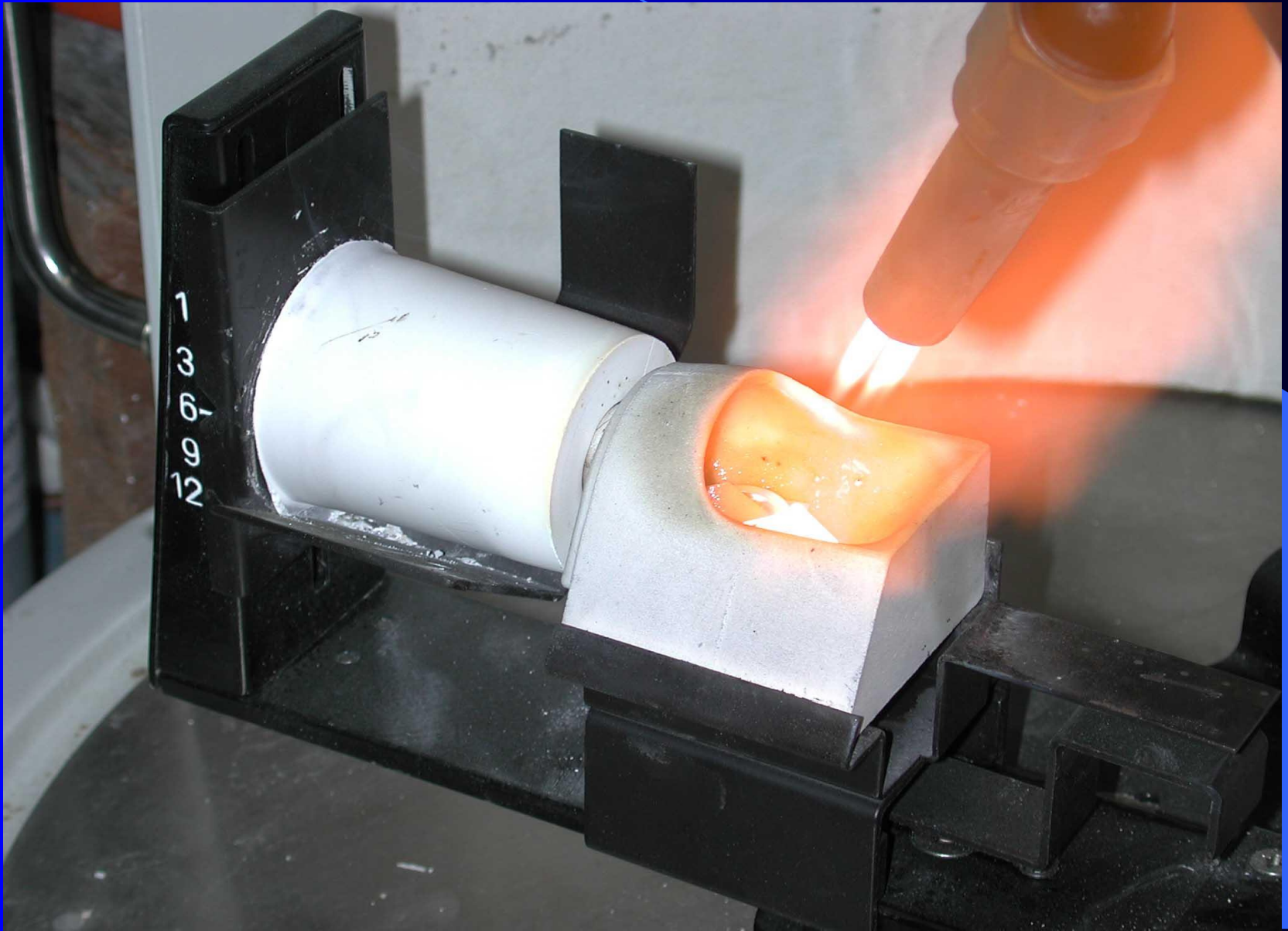
TORCH & GOGGLES



PPC



MELTING



METAL PENATRATION



BREAK OUT





Rough Casting



EFFICIENT SUBSTITUTION BY FLUID WHIRLPOOL

JUST POURED

**INTERMITTENT
SUBSTITUTION**



**INCONSTANT
DISCHARGE**

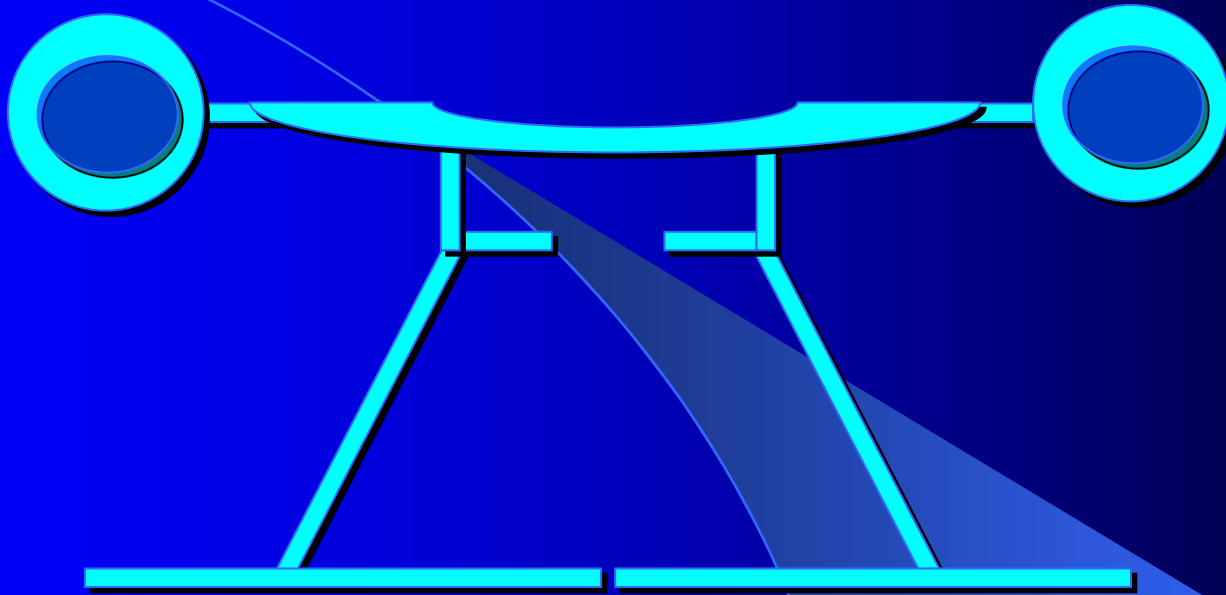
WITH WHIRLPOOL

**CONTINUOUS
SUBSTITUTION**

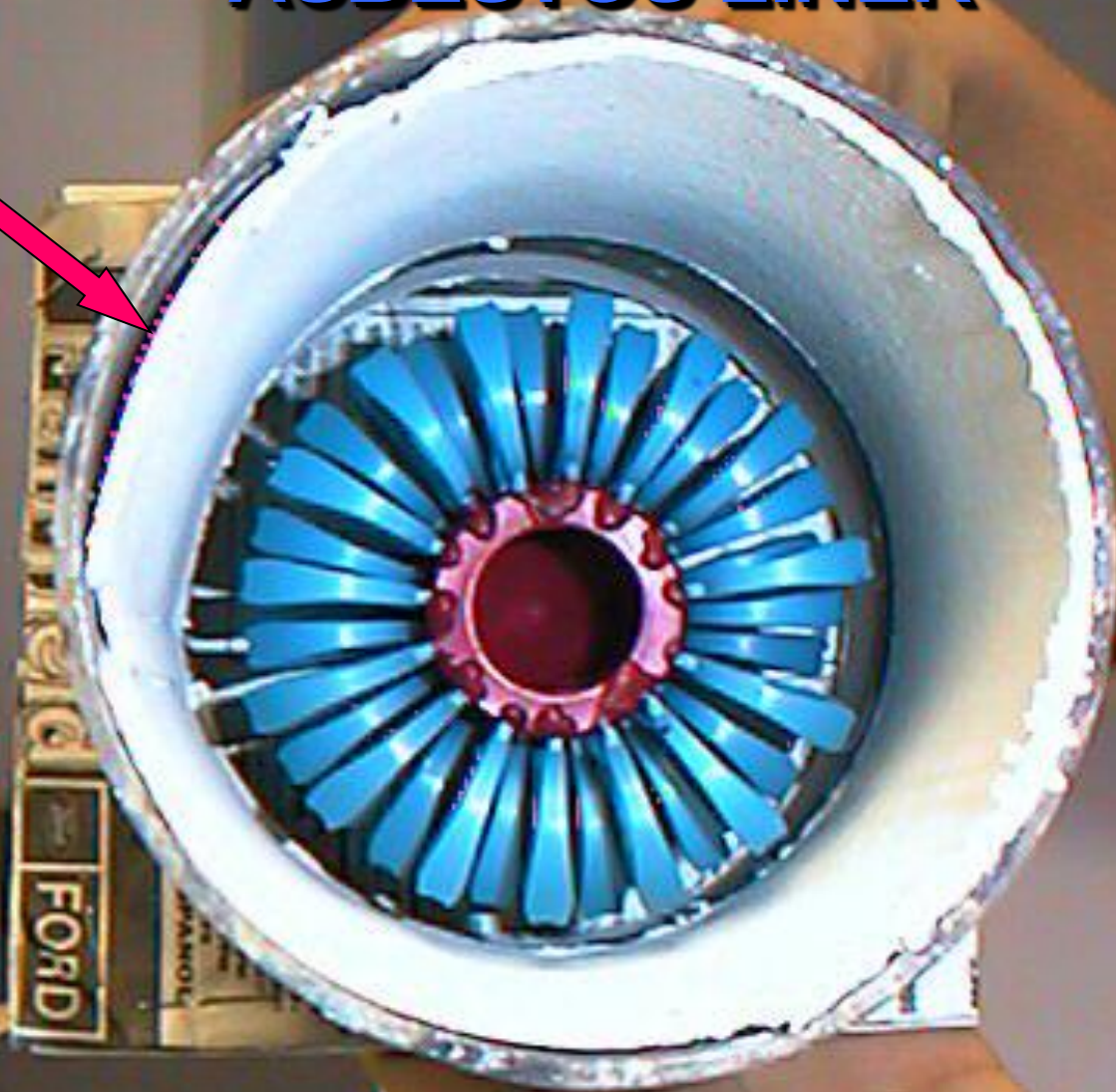
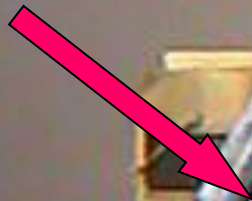


**FAST-FREQUENT
DISCHARGE**

CROSS-SECTION OF A PPC SPRUE



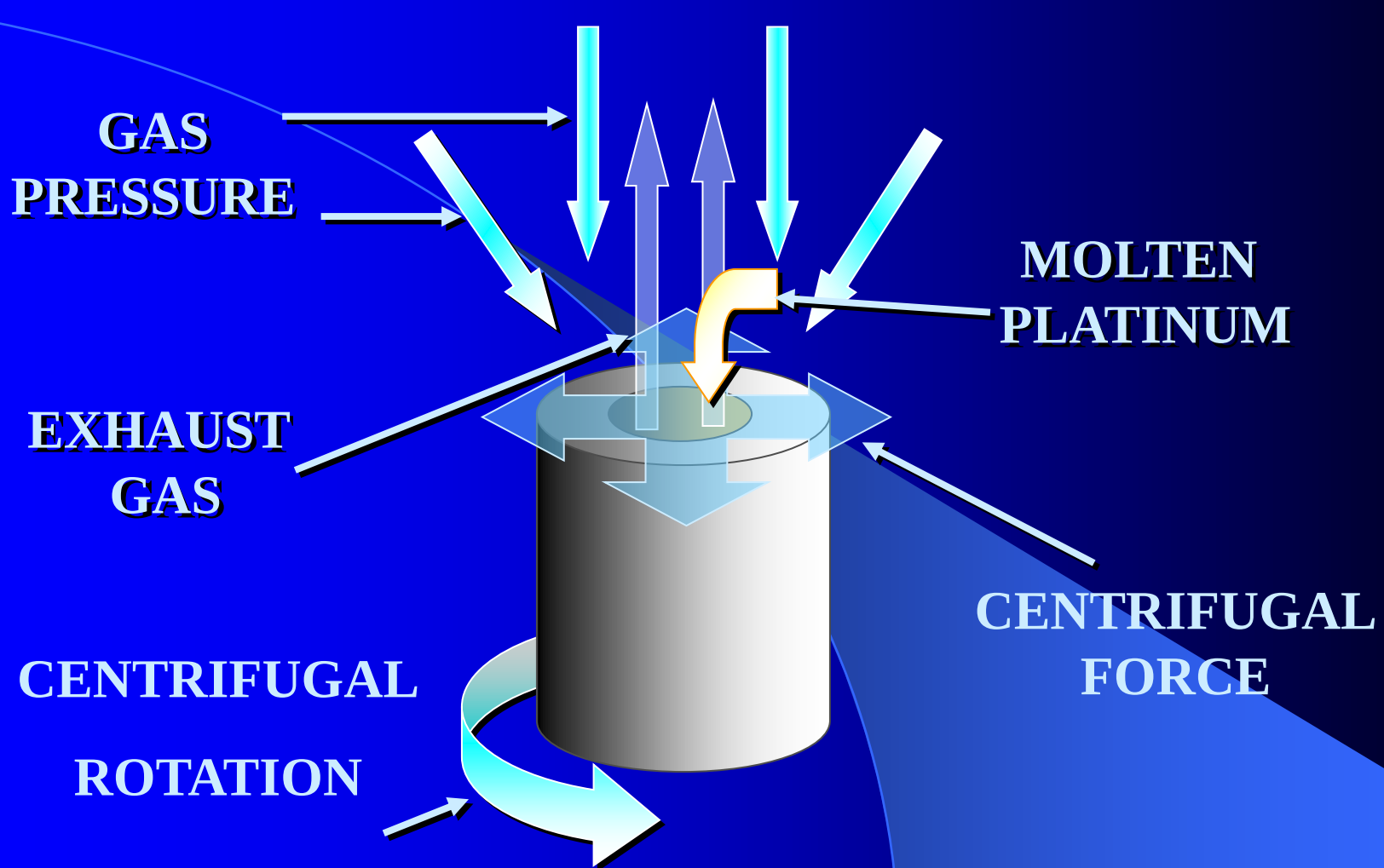
SPRUED PPC FLASK SHOWING NON- ASBESTOS LINER



PC CAST PLATINUM TREE



PPC 2000 PRINCIPLE



PPC 2000 MELTING CYCLE

DUAL SPECTRUM
OPTICAL
PYROMETER

VIEWING
PORTAL

ARGON

INDUCTION
COIL

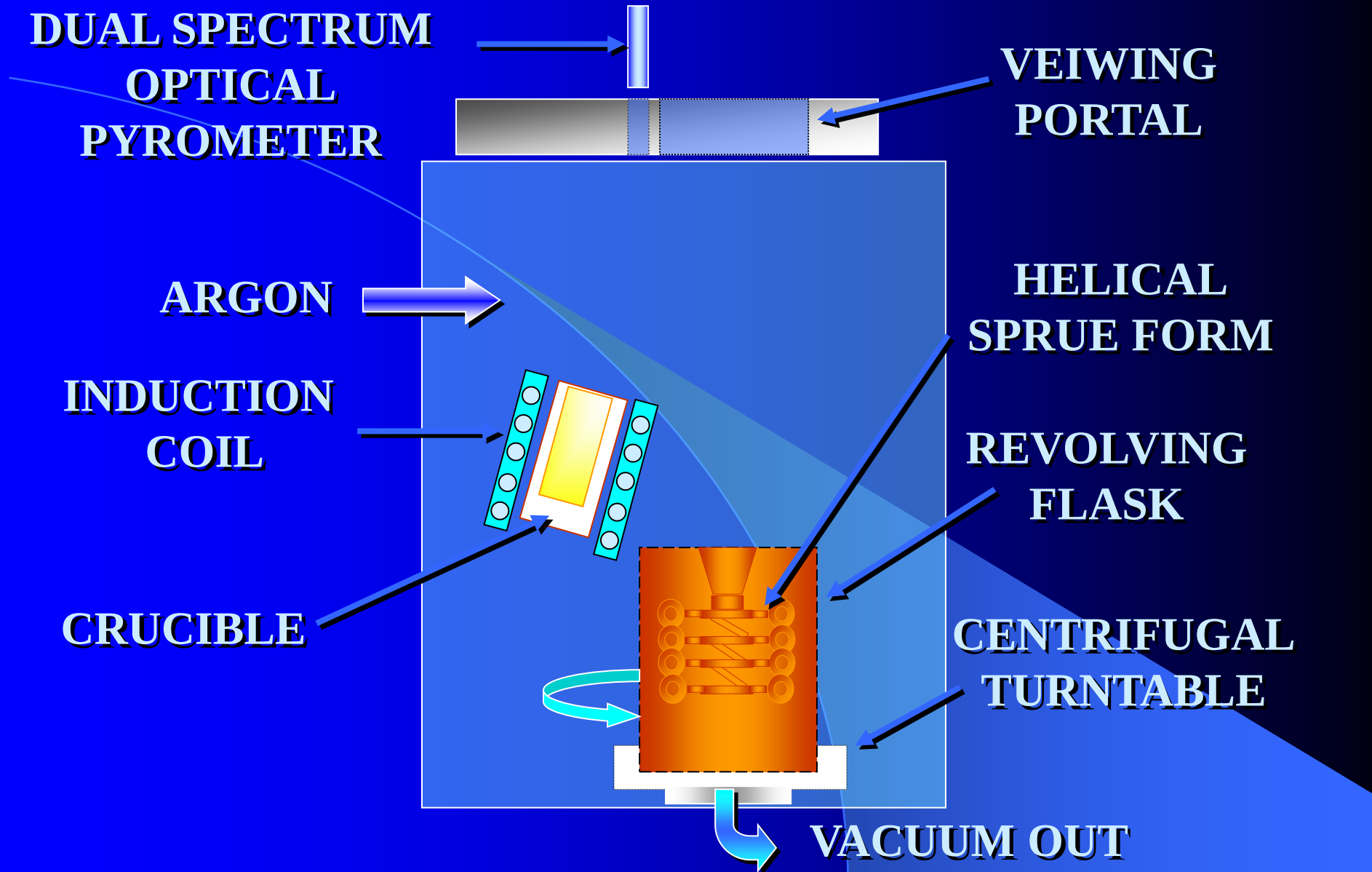
CRUCIBLE

HELICAL
SPRUE FORM

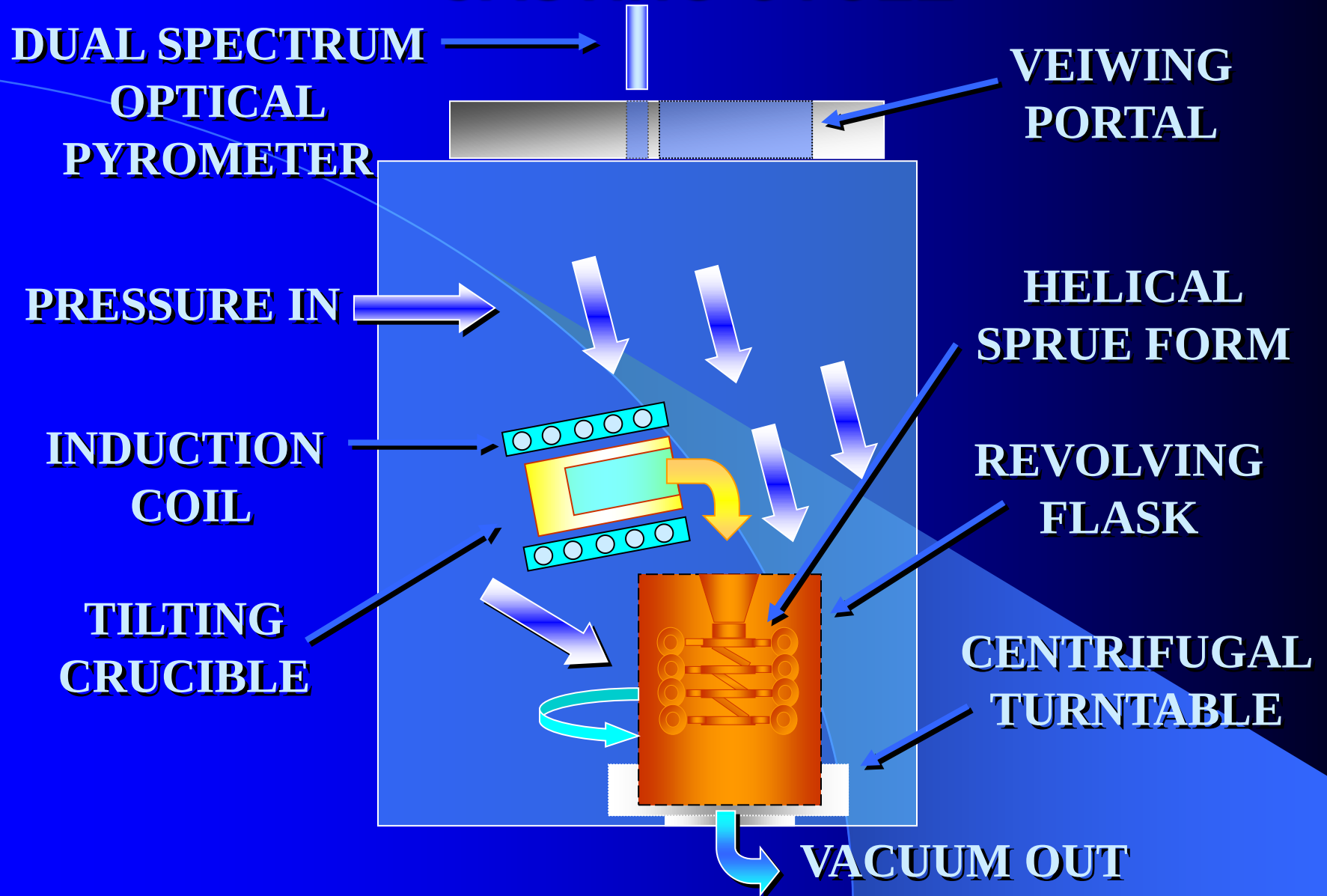
REVOLVING
FLASK

CENTRIFUGAL
TURNTABLE

VACUUM OUT



PPC 2000 CASTING CYCLE





PPC CAST PLATINUM TREE

PPC



PPC CAST PLATINUM TREE





Group Castings

