

SUPERCONTROL

# CATALOG

## 2026 ALUMINIUM DIE CASTING MOLD & DIE SUPPORTING EQUIPMENT

Every die-casting component SCA manufactures is built to reduce cycle time and extend Mold life — the two levers that most directly affect a die-caster's cost per shot.

CERTIFIED ISO 9001:2015 COMPANY

CERTIFIED ISO 14001:2015 COMPANY

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MAKE IN INDIA




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**MORE INFO**
www.supercontrol.in
super.control@yahoo.co.in

# ABOUT US

## Precision Tooling. Reliable Casting Performance.

Super Control & Automation (SCA) provides precision-engineered aluminium die-cast moulds and die-cast spares for HPDC manufacturers, automotive component suppliers, and industrial foundries. Our solutions are designed to support consistent casting quality, minimize defects, improve die performance, and enhance production efficiency.

With a focus on precision manufacturing, material quality, and application-specific engineering, SCA helps manufacturers achieve reliable production outcomes and reduce costly trial iterations.

## Why Choose SCA?

**95% First Trial Ratio (FTR):** Focused on achieving quality and performance from initial trials.

**20–50 Micron Precision:** Precision-focused manufacturing for demanding die-casting applications.

**Quality-Driven Manufacturing:** Components engineered for durability and consistent performance.

**Production-Focused Solutions:** Designed to help reduce casting defects and improve operational efficiency.






# OUR TECHNOLOGY

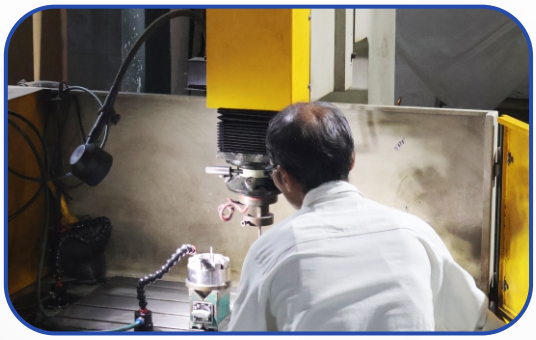
Precision starts with the right tools. Our facility is equipped with :



**Design & Programming:**
Pro-E and Solid Works for design, Delcam for VMC programming, AutoCAD and CAD Macro for wirecut




**CNC Machining:**
Multiple VMC centres (bed sizes up to 1200mm x 750mm x 600mm) for high-accuracy core, cavity, and insert machining



**EDM & Wirecut:**
CHMER, Sparkonix, Kunshan Canaan, and Oscar Max wirecut & EDM machines, plus dedicated EDM drilling for fine hole and vent work



**Grinding:**
Surface and cylindrical grinders (Pinnacle and others) for tight-tolerance finishing



**Metrology:**
Zeiss Spectrum CMM (700x1000x660mm) alongside a full set of digital height gauges, bore gauges, micrometers, slip gauges, and portable hardness testers

**In-house Proprietary Systems: Jet Cooling Systems and Vacuum Vent Blocks — engineered by SCA to eliminate hotspots, reduce porosity, and extend die life**

**This combination lets us take a mould from 2D/3D design through hardening, EDM, and final polishing entirely under one roof — with quality checked at every stage, not just at the end.**

# OUR CERTIFICATION

SUPERCONTROL



QRO
QUALITY RESEARCH ORGANIZATION

*Certificate of Registration*

This is to certify that

**SUPER CONTROL & AUTOMATION**

**PLOT NO. 5, NANGLA GUJRAN, NEAR SHYAM DHARAM KANTA, SOHNA ROAD, FARIDABAD -121004, HARYANA, INDIA**

has been independently assessed by QRO
and is compliant with the requirement of:

**ISO 9001:2015**

**Quality Management System**

For the following scope of activities:

**DESIGN, MANUFACTURING, SUPPLY, INSTALLATION OF PROCESS AUTOMATION & MACHINE AUTOMATION SYSTEM, AS WELL AS SPECIAL PURPOSE TESTING EQUIPMENTS & MACHINES, SOLAR PV MODULE TESTING EQUIPMENTS, DIE AND MOULDS**

Date of Certification: 8th September 2026
1st Surveillance Audit Due: 7th September 2027
2nd Surveillance Audit Due: 7th September 2028
Certificate Expiry: 7th September 2029

**Certificate Number: 305026090861Q**

EGAC CAB # 011905

Head of Certification

Validity of this certificate is subject to annual surveillance audits to be done successfully on or before 365 days from date of the audit. (In case surveillance audit is not allowed to be conducted: this certificate shall be suspended / withdrawn).
**The Validity of this certificate can be verified at www.qrocert.org**
This certificate of registration remains the property of QRO Certification LLP, and shall be returned immediately upon request.

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has been independently assessed by QRO
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**ISO 14001:2015**

**Environmental Management System**

For the following scope of activities:

**DESIGN, MANUFACTURING, SUPPLY, INSTALLATION OF PROCESS AUTOMATION & MACHINE AUTOMATION SYSTEM, AS WELL AS SPECIAL PURPOSE TESTING EQUIPMENTS & MACHINES, SOLAR PV MODULE TESTING EQUIPMENTS, DIE AND MOULDS**

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2nd Surveillance Audit Due: 7th September 2028
Certificate Expiry: 7th September 2029

**Certificate Number: 305026090863E**

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and is compliant with the requirement of:

**ISO 45001:2018**

**Occupational Health and Safety Management System**

For the following scope of activities:

**DESIGN, MANUFACTURING, SUPPLY, INSTALLATION OF PROCESS AUTOMATION & MACHINE AUTOMATION SYSTEM, AS WELL AS SPECIAL PURPOSE TESTING EQUIPMENTS & MACHINES, SOLAR PV MODULE TESTING EQUIPMENTS, DIE AND MOULDS**

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Certificate Expiry: 7th September 2029

**Certificate Number: 305026090862HS**

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# KEY MACHINERIES

## VMC-CNC Machining Centres

Precision machining capabilities for accurate die cast mould manufacturing and complex component machining.

**Rajshree Automation & CNC Services — Bed Size: 1200 × 750 × 600 mm | Qty: 1 No.**
**Rajshree Automation & CNC Services — Bed Size: 800 × 500 × 500 mm | Qty: 3 Nos.**

**Total CNC Machines: 4 Nos.**
**Precision Machining • Consistent Accuracy • Quality Tooling**




## Wire-Cut EDM Machine

Precision Wire Cutting • Complex Die Profiles • High Accuracy Machining

**Make: CHMER Type: CW 640 FX × Y × Z Travel: 600 × 400 × 300 mm**
**Table Size: 650 × 400 mm**

**Total Wire Cut Machines: 1 Nos.**
**Precision Machining • Consistent Accuracy • Quality Tooling**



## EDM Machines

Precision Wire Cutting • Complex Die Profiles • High Accuracy Machining

**EDM Machine – 1**
**Make: SPARKONIX | Type: ZNC 50A**
**Table Size: 600 × 350 × 200 mm | Qty: 1 No.**

**EDM Machine – 2**
**Make: KUSHAN CANAAN | Type: ZNC 700**
**Table Size: 650 × 550 × 300 mm | Qty: 1 No.**

**EDM Machine – 3 & 4**
**Make: OSCAR MAX | Type: FORM 2LC**
**X × Y × Z: 450 × 300 × 200 mm**
**Table Size: 450 × 300 mm | Qty: 2 Nos.**

**Total EDM Machines: 4 Nos.**



## Coordinate Measuring Machine (CMM)

High-Precision Measurement • Dimensional Accuracy • Quality Inspection

**Make: ZEISS**
**Model: 07.10.07X × Y × Z**
**Measuring Range: 700 × 1000 × 660 mm**

**Accuracy: MPEE = 2.3 + 4.5L/1000 µm**





# OUR TEAM

Our strength is our people. SCA fields a team of **40–45 engineers and technicians**, with an **average experience of 15–20 years** in die and mould making — a depth of experience that shows up in first-attempt accuracy rather than repeated trials. This is backed by **20+ dedicated service engineers who ensure a 24-hour** service response throughout the product lifecycle, so support doesn't stop once the tool leaves our floor.

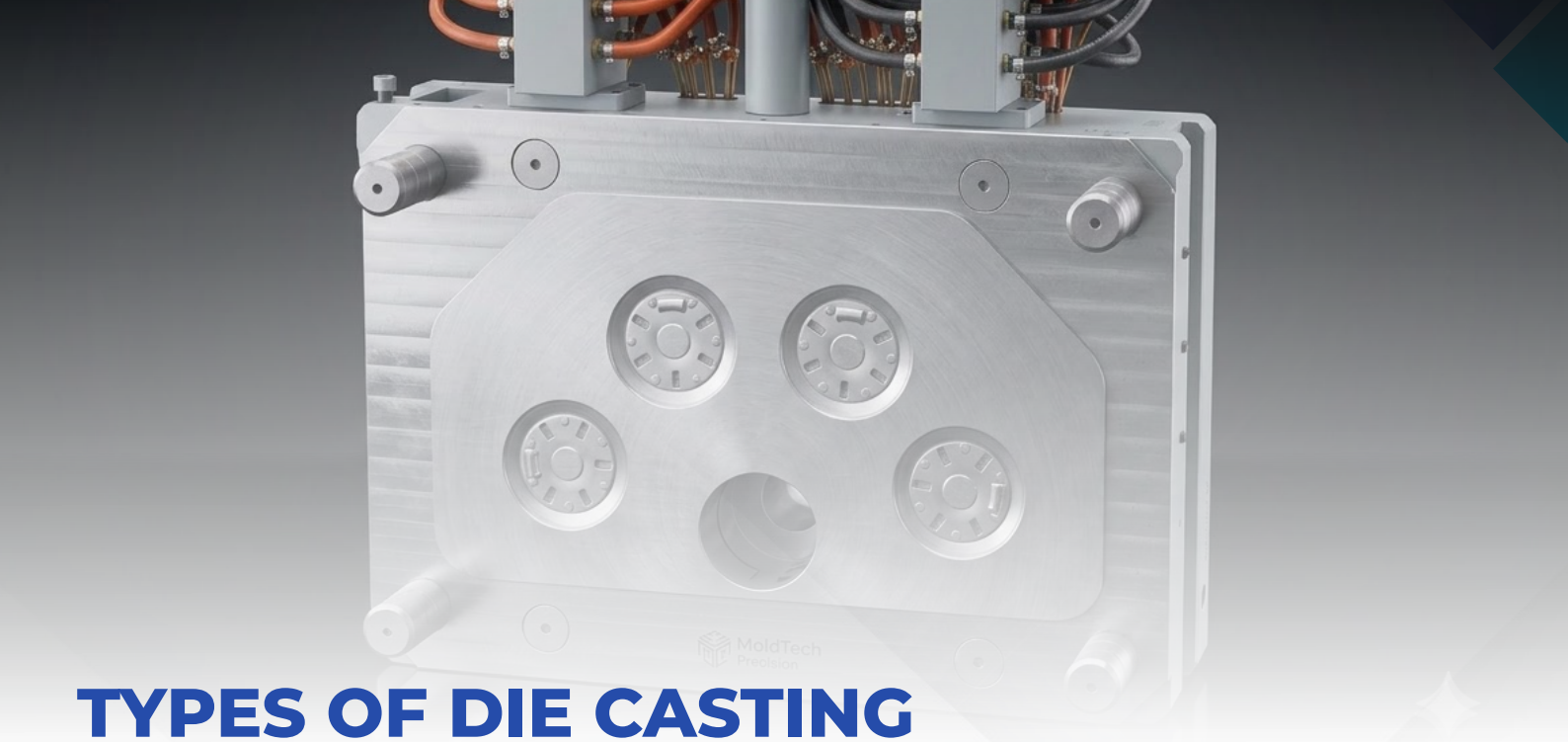
# OUR PROCESS

From enquiry to dispatch, every mould moves through a controlled, stage-gated process — design approval, raw material issue, pre-machining, hardening, and post-hardening finishing — with one constant at every single stage:

**EVERY STEP IS VERIFIED ON OUR CMM (COORDINATE MEASURING MACHINE) BEFORE IT MOVES TO THE NEXT.**

Core and cavity machining, hardening, mould assembly, and final trial samples are all measured and signed off on the CMM — not just the finished part. This stage-by-stage inspection is what lets us catch deviations early, instead of discovering them at final sampling.



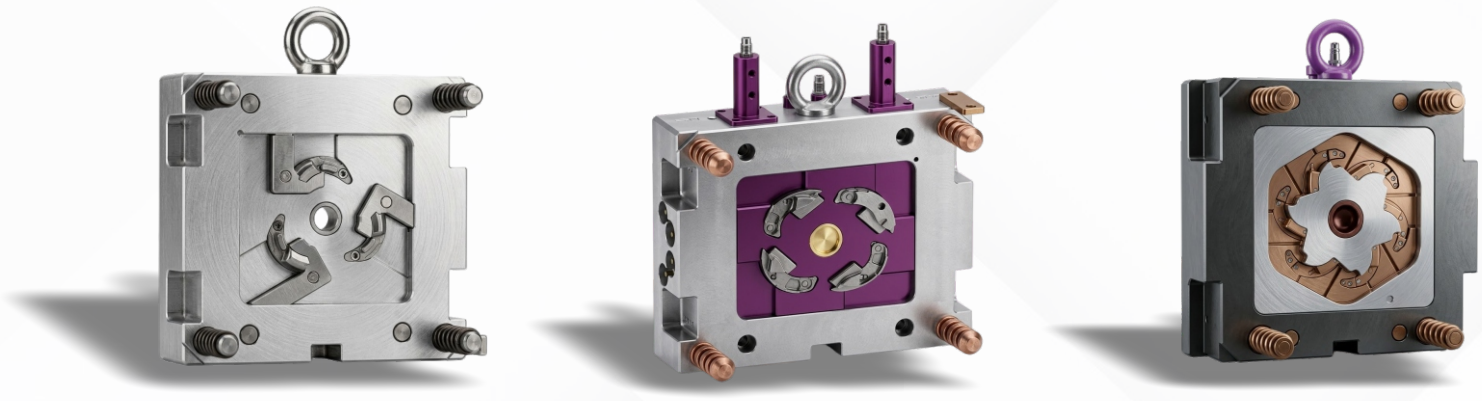


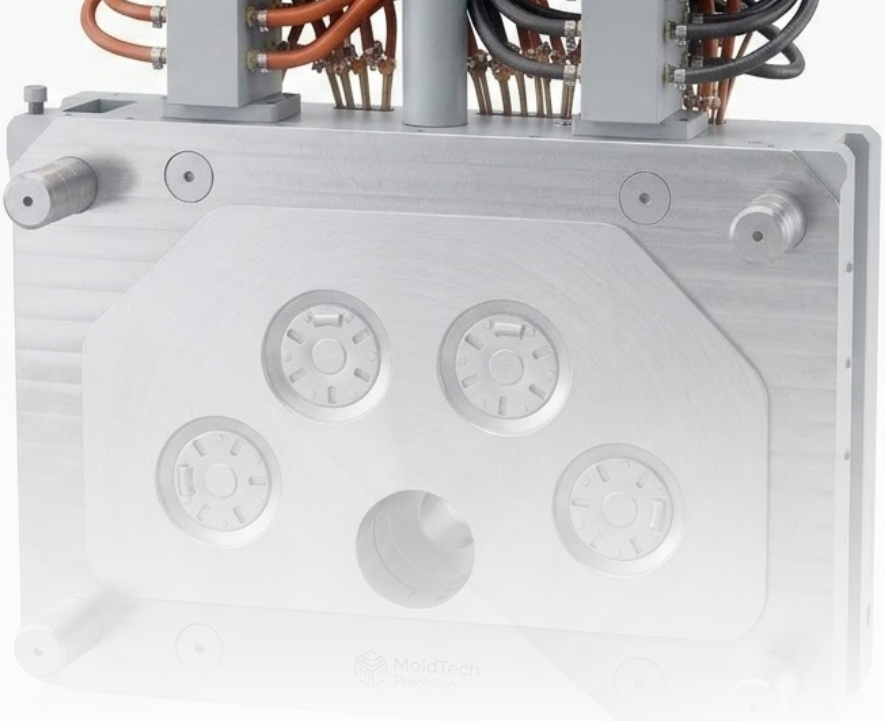
# TYPES OF DIE CASTING MOULDS WE MANUFACTURE

We design and build multi-cavity die casting dies to match your production volume and part complexity, including:

| Configuration | Best suited for |
|---|---|
| **Three Cavity** | Mid-volume production runs where cycle-time efficiency and tool cost need to be balanced |
| **Four Cavity** | Higher-volume runs needing improved shot-to-part output without stepping up to a larger tonnage machine |
| **Six Cavity** | High-volume, high-repeatability production where maximum parts-per-shot drives down per-unit cost |

Each cavity configuration is engineered around the same principles that define all our tooling — precise core/cavity machining, CMM-verified accuracy at every stage, and mould designs optimized for cooling and cycle time, so higher cavitation never comes at the cost of part consistency.



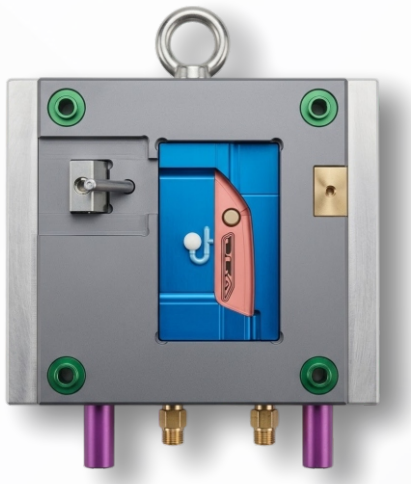


# MATERIALS WE WORK WITH

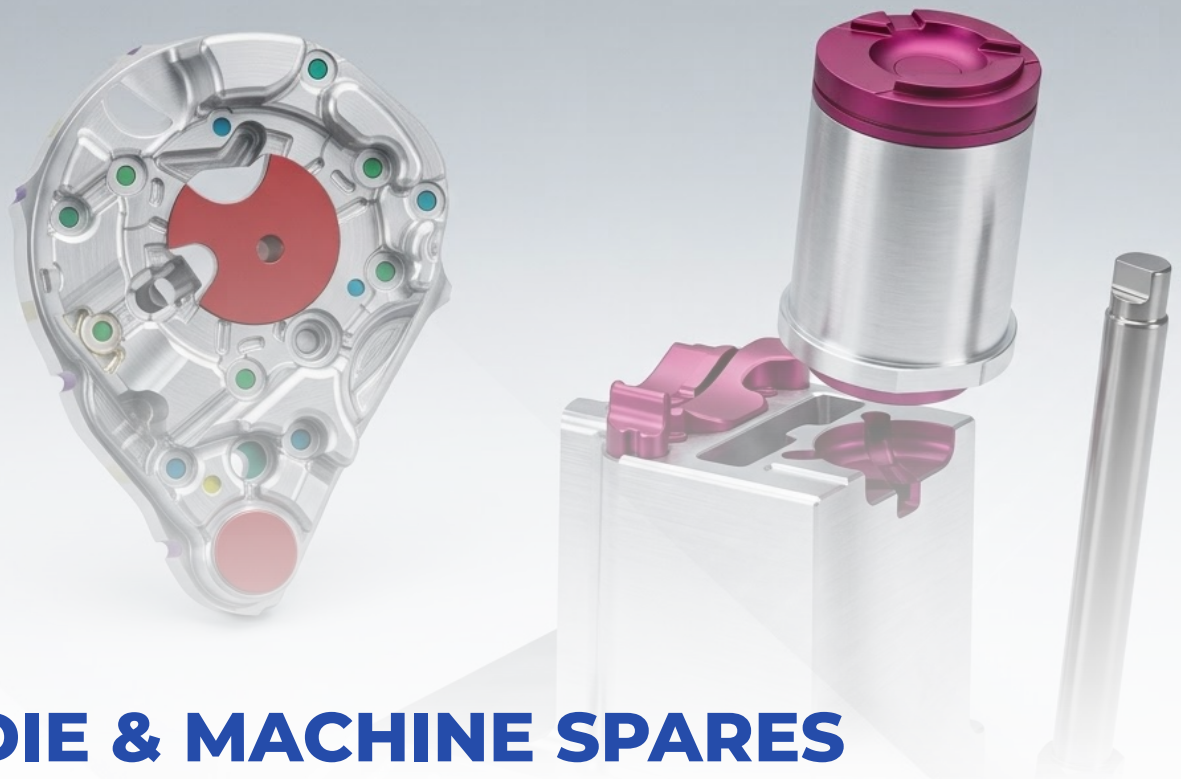
Our tooling capability isn't limited to one material or process — we design and build dies across the three major casting and moulding streams:

| Material / Process | What we manufacture |
|---|---|
| **Aluminium Die Casting** | HPDC dies for structural and precision automotive components (e.g. motor housings, clutch components) — part material typically ADC-12 |
| **Zinc Die Casting** | Multi-cavity zinc dies (Three/Four/Six Cavity configurations) for high-volume, tight-tolerance components |
| **Plastic Injection Molding** | 2-Plate injection moulds in PP and ABS — sensor covers, lid components, impellers, and housing parts, for tonnages ranging from 80T to 150T |

This range means a customer can move from a die-cast metal component to its plastic counterpart — or vice versa — without switching vendors.







# DIE & MACHINE SPARES

Beyond full tools, we manufacture the precision spares that keep a die-casting line running — engineered to the same tolerances as our dies, and built for fast replacement without compromising cycle consistency.

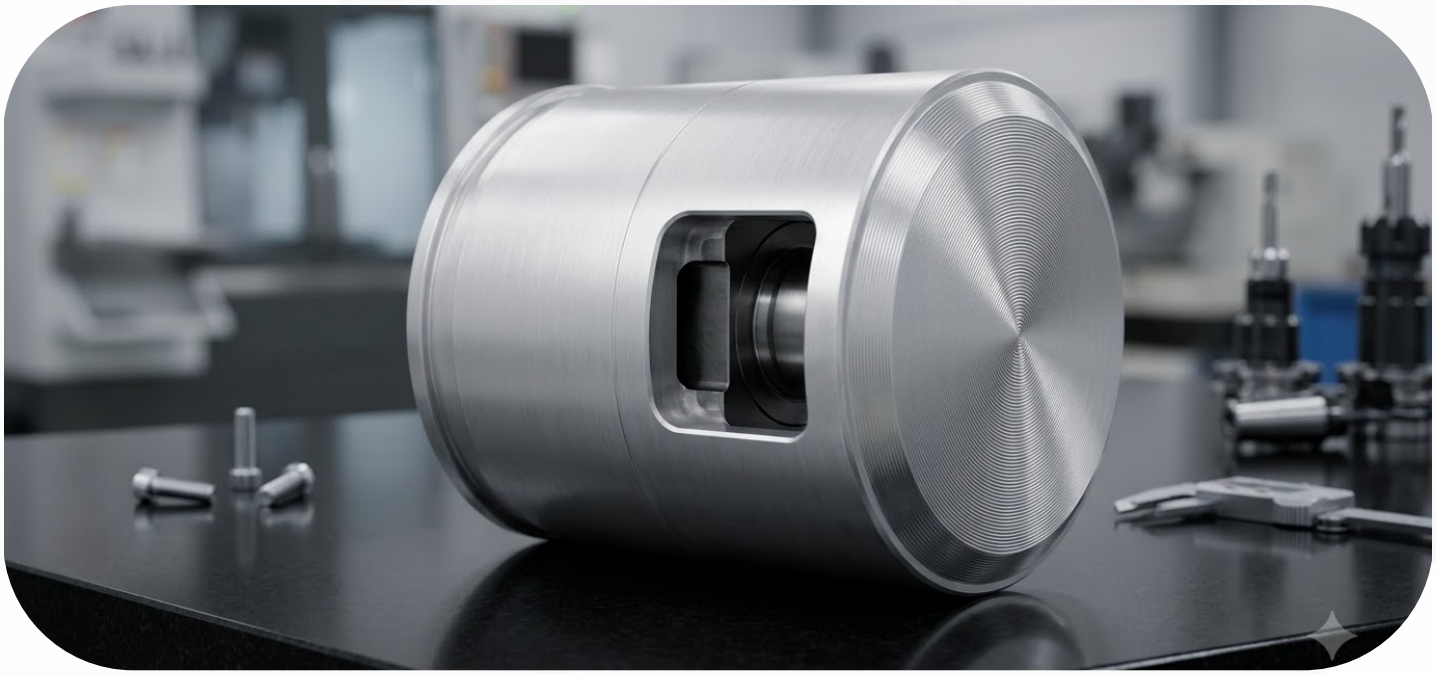
### Die Spares

- **Die Punches & Sliders**
- **Die Core Pins**
- **Sprue Bush & Diff**
- **Chill Vent Sets**

### Machine Spares (HPDC)

- **Machine Shot Sleeves — up to 1100 Ton machines**
- **Plunger Tips & Plunger Rods**
- **Spray Cassettes**
- **Machine Couplings**

All spares are manufactured in-house on the same CNC, EDM, and grinding lines used for our main tooling, and inspected on the same CMM — so replacement parts hold the same accuracy as the original die.





# QUALITY THAT SPEAKS FOR ITSELF

**20–50 MICRONS**
The Accuracy We Hold On Our Die-cast Moulds

**95% (FTR)**
**First Trial Ratio**
The Proportion Of Customer Requirements Met On The Very First Trial

**8–10 TOOLS**
Manufactured Per Month, Average Capacity

**40–45 Person**
Engineering Team, Averaging 15–20 Years Of Experience

**CMM INSPECTION**
at every process stage not just a final QC

Precision moulding means better casting, less defects and better productivity, Our Die Cast Moulds are engineered for high precision, dimensional accuracy aur consistent casting quality.



# Our Clientele

Every product across all three verticals — Testing Equipment, Die Cast Mould Components, and Special Purpose Machinery — is designed, fabricated, assembled and calibrated within SCA's own Make-in-India Manufacturing Facility in Faridabad. Nothing is outsourced to third-party job shops for critical build or service work.

## Die Cast Mould

CLUTCH F.C.C. TECHNOLOGY

ROCKMAN

Global Autotech

samvardhana motherson

ASK®

# VACUUM VENT BLOCK

## Technical Specifications

| TECHNICAL SPECIFICATIONS OF Vacuum Block | |
|---|---|
| Material | H13 |
| Application | Remove Air from the Die Before Metal Fill |
| Disc | Compensator disc & Backside disc |
| Hardness | 50 HRC |
| Dimension Part-1 Size : WxLxT | As per requirement |
| Dimension Part-2 Size : WxLxT | As per requirement |



The **Vacuum Vent Block** is a precision-engineered die-casting component designed to efficiently remove trapped air and gases from the mould cavity. It enhances casting quality by reducing porosity, improving surface finish, and ensuring consistent, defect-free production.



# CHILLVENT BLOCK'S

## Technical Specifications

| TECHNICAL SPECIFICATIONS OF CHILLVENT BLOCKS | |
|---|---|
| Material | H13 |
| Application | Provides Proper Venting in the Die |
| Hardness | 46-48 HRC |
| Dimension Part-1 Size : WxLxT | As per requirement |
| Dimension Part-2 Size : WxLxT | As per requirement |

Precision-engineered H13 chillvent blocks designed for proper die venting, with 46–48 HRC hardness and dimensions customized as per requirement.

# SHORT SLEEVES

## Technical Specifications

| TECHNICAL SPECIFICATIONS OF SHORT SLEEVES | |
|---|---|
| Material | Steel H13/SKD61 |
| Hardness | 45-50HRC, 60-65HRC |
| Size | 125T, 150T, 250T, 350T, 650T, 1250T, by Drawings |
| Life Time | 100000+ shots |
| Application | Aluminum Die Casting |



High-strength H13/SKD61 steel sleeves designed for aluminum die casting, offering excellent wear resistance, durability, and a service life of 100,000+ shots. Available in various tonnage sizes as per drawings.



# SPRAY NOZZLE

## Technical Specifications

| TECHNICAL SPECIFICATIONS OF spray casstes nozzels | |
|---|---|
| Material | Cooper + Aluminium |
| Features | Light Weight, Multiple Locations for Spray |
| No. of Spray Points | As per Reqiurement |
| Application | Aluminium Die Casting Machine's |

Lightweight copper and aluminium spray nozzles designed for multi-point spraying in aluminium die casting machines, providing flexible spray coverage and efficient cooling/lubrication as per application requirements.

# PLUNGER TIP

## Technical Specifications

| TECHNICAL SPECIFICATIONS OF PLUNGER TIP | |
|---|---|
| Material | CI Casting / S50 C BLOCKS |
| Features | Special Coated for Life Improvement |
| Life | 52k to 70k Shots |
| Specification | 150 Ton to 2200 Ton machine's |
| Application | Aluminium Die Casting Machine's |



High-strength H13/SKD61 steel sleeves designed for aluminum die casting, offering excellent wear resistance, durability, and a service life of 100,000+ shots. Available in various tonnage sizes as per drawings.




# Jet Cooling System

## Technical Specifications

| Technical Specification of Jet Cooling System | |
|---|---|
| Machine Model No. | SJCS-10-2S, SJCS-20-2S, SJCS-20-4S, SJCS-40-4S, SJCS-60-4S, SJCS-60-6S, SJCS-96-6S, |
| Core Pins | 10,20,40,60 & 96 Nos. |
| Cooling Output | 2,4 & 6 Nos. |
| Air Output | 2,4 & 6 Nos. |
| Inlet Water Pressure | 1-4 Bar (0.1-0.5 MPA) |
| Inlet Air Pressure | 4-6 Bar (0.4-0.6 MPA) |
| Input Power Supply | 380-415 Volt AC 50HZ |

The **Jet Cooling System** is engineered to eliminate hotspots and optimize cooling in die-casting moulds, reducing soldering, shrinkage porosity, and thermal fatigue. Designed to international standards, it enhances die life, improves casting quality, and ensures consistent performance in high-temperature manufacturing environments.

# VACUUM MACHINE

## Technical Specifications

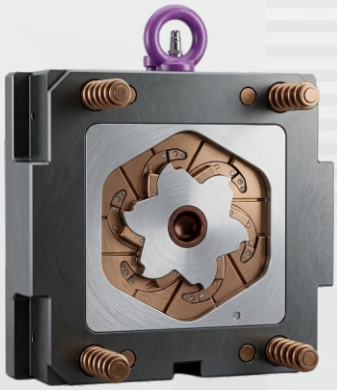
| Technical Specification of Vacuum System | |
|---|---|
| Machine Model No. | SVS-150L, SVS-250L, SVS-500L, SVS-800L |
| Reservoir Capacity | 150Ltr. 250Ltr. 500Ltr. & 800Ltr. |
| Reservoir Body Material | Mild Steel with Point |
| Suction Port | 2 Nos. |
| Vacuum Pump Capacity | 25 m3/h, 40 m3/h, 63 m3/h & 100 m3/h, |
| Ultimate Pressure | 0.1 hpa (mbar) |
| Maximum Vacuum Capacity | - 99KPA |
| Input Power Supply | 380-415 / 200-220 Volt AC 50HZ |
| Inlet Air Pressure | 4-6 Bar (0.4-0.6 MPA) |




High-performance Vacuum System designed for efficient air evacuation in aluminium die casting applications. With multiple reservoir capacities and high-capacity vacuum pumps, it delivers rapid, stable vacuum generation for improved die filling, reduced porosity, and consistent casting quality.










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