

# Bramah Xtrutek Inc.

**EXPERTISE IN EXTRUSION LINES** 

# **CUTTING-EDGE EXTRUSION TECHNOLOGY FOR YOUR SUCCESS**



- **Extrusion Line: 25mm to 175mm**
- **Fixed Center Cross Heads**
- **Manual Center Cross Heads**
- Take Up & Pay Off
- Screw & Barrel
- Caterpillar & Capstan
- Tip & Die
- **Spares**
- Automatic Dual Take Up

- · "At Sai Extrusiontek Inc, we engineer cable extrusion lines, crossheads, and tooling with precision, reliability, and innovation at every step".
- "Our focus is simple to deliver consistent performance and perfection through advanced engineering and quality craftsmanship".

- Mohan Nambiar-Founder, Sai Extrusiontek Inc.









## Mr. Mohan Nambiar,

Founder of Sai Extrusiontek Inc (Bramah Xtrutek Inc)

Sai Extrusiontek Inc./Bramah Xtrutek Inc.
Driving Global Innovation in Extrusion
Technology



With a strong global presence across Europe, the USA, the Middle East, and India, Sai Extrusiontek Inc/Bramah Xtrutek Inc has earned its reputation as a trusted name in the wire and cable industry. Led by Mr. Mohan Nambiar, the company designs and manufactures world-class crossheads, tooling, and extrusion lines that compete with top European and American OEMs.

For over 25 years, Sai Extrusiontek Inc/ Bramah Xtrutek Inc has been at the forefront of technological excellence and innovation. The company's R&D division continuously develops next-generation solutions—such as Al-driven automation, energy-efficient extrusion systems, and advanced crossheads with superior flow-channel designs for perfect concentricity and minimal material wastage.

Sai Extrusiontek Inc/Bramah Xtrutek Inc product portfolio includes single, double, and triple-layer crossheads for LV, MV, and HV cable applications, along with Sioplas, FR-XLPE, and high-speed extrusion lines. Every solution is customized to suit client requirements—whether for compact layouts, quick-change systems, or specialized adapters—ensuring efficiency, safety, and consistency across different materials and cable types.

The company's focus on R&D, automation, and sustainable manufacturing continues to set it apart. By integrating global OEM-level precision with cost-effective Indian manufacturing, Sai Extrusiontek Inc/Bramah Xtrutek Inc delivers the perfect blend of quality and affordability.

Looking ahead, the company aims to further expand its production capacity, strengthen its presence in Europe and the US, and form strategic partnerships to advance material innovation. Guided by its vision — "World-class innovation, made accessible" — Sai Extrusiontek Inc/Bramah Xtrutek Inc remains committed to empowering cable manufacturers worldwide with cutting-edge extrusion technology.

Innovation drives every extrusion line we build. From precision design to automation, we keep finding better ways.

## Together we progress...Together we prosper....

## **Expertise in Extrusion Lines & Extrusion Tools**

## **Company Profile**

Sai Extrusiontek Inc. manufactures world-class machine tools, crossheads, and complete extrusion lines. With 25 years of experience, we deliver solutions known for safety, high efficiency, automation, and user-friendly operations.

We use state-of-the-art European and US technology and export to Europe, the USA, the Middle East, and China.

## **Our Offerings**

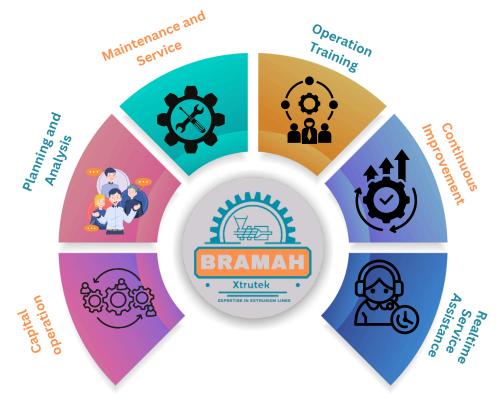
- Extruders, Heads, Tips, Dies, Breaker Plates, Clamps, Cartridges, and Complete Extrusion Lines
- Specialized Lines for: Building Wire | Teflon Cable | Power Cable | Solar Cable | Silicone Rubber | Automotive Cable

## **Our Strengths**

- Planning & Analysis: Tailored solutions for your specific production needs.
- Maintenance & Service: Regular maintenance to ensure smooth and efficient operation.
- Innovation & Development: Continuous improvement through research and customer feedback.
- Operation Training: Operator training for efficient and error-free production.
- Real-Time Assistance: Quick technical support and remote monitoring.

## **Our Vision**

We aim to support customers in upgrading and optimizing extrusion lines, aligning with global quality standards and technologies.



# **OUR PRODUCTS**



## **EXTRUDER**

Bramah extruder high performance for Wire & Cable insulation, and cable jacketing sheathing. We have the perfect all in one solutions. Solutions for your individual process and extrusion lines with higher flexibility ,higher linerity & higher output with optimist screw geometry.



## TAKE-UP /PAY OFF

Integral frame has nice appearance which is welded by high quality bending steel, and high quality seamless pipe by means of "pipe in pipe" combination structure. Shaftless "opening-closing" movement mechanism, dual lifting system, bobbin loading & unloading is without crane. Whole frame together with bobbin can be travelled on the rails, to realize cable keeping center during pay-off and take-up wire, so as to against body distortion.



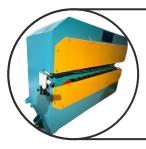
## **COOLING TROUGH**

Stainless steel , corrosive resistant and Fully adjustable in 3 directions for perfect product alignment.vailable in a range of sizes to match Aproduction and environment, Adjustable water level for total control Optional calibration or profile plate holders. Overflow catch tray at the outlet & inlet for a clean operating environment, Easy clean down, Optical Drop-in vacuum Tank, Optical Air Wipers for product drying.



## PNEUMATIC DRIVEN PAY OFF

Pneumatic driven pay-offs ensure smooth and precise wire or cable unwinding with controlled tension for consistent quality. Built for high-speed production, they are energy-efficient, reliable, and easy to integrate into existing extrusion lines. Ideal for minimizing operator effort while maximizing efficiency and safety.



## **CATERPILLAR**

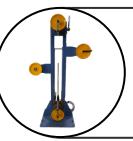
The Bramah series are designed for pulling and transferring wires and cables in the wire & cable manufacturing production lines. This series of machines are normally attached to lines such as extrusion lines, armoring lines, rewinding lines and etc. The Bramah series utilize pneumatic tension control system, which provides enough pulling force on the cable or wire while leaving no dents or other damage to the insulation or sheath.

## Together we progress.... together we prosper....



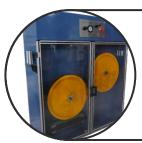
## **AUTO DUAL TAKE-UP**

The Auto Dual Take-Up enables continuous, automatic winding on two reels with precise tension control for smooth, vibration-free operation. Its quick reel changeover accommodates different reel sizes, ensuring high efficiency and minimal downtime in cable production. Designed for reliability and ease of use, it helps maintain consistent product quality while optimizing overall line performance.



## **DANCER**

A dancer is a key component in the extrusion line that maintains precise tension on the cable during manufacturing. It ensures smooth, consistent winding and prevents slack or overstretching, helping to maintain product quality and reduce line stoppages.



## **MULTI-PASS CAPSTAN**

The Multi-Pass Capstan ensures controlled pulling and consistent tension of wires or cables during the extrusion process. Its multi-pass design allows smooth material handling at high speeds, reducing stretch and maintaining product quality. Built for reliability and precision, it integrates seamlessly into modern extrusion lines.



## **CONICAL FLYER PAY OFF**

The Conical Flyer Pay-Off provides smooth and controlled unwinding of wires or cables with minimal tension fluctuations. Its conical design ensures even distribution on the reel, reducing tangles and maintaining product quality. Ideal for high-speed production, it is reliable, efficient, and easy to integrate into extrusion lines.



## **CROSSHEAD**

Bramah xtrutek Inc crossheads are designed for precision, durability, and smooth operation in wire extrusion and cable insulation processes. Built with modern equipment, advanced technology, and decades of engineering experience, our crossheads ensure consistent quality and high efficiency. We prioritize accuracy in production, continuous product development, and strict quality control, along with reliable after-sales support for our customers.



## **SCREW BARREL**

Bramah xtrutek Inc screw barrels are manufactured using advanced technology and precision machinery, ensuring high strength, durability, and consistent performance. Designed for smooth material flow and optimal extrusion efficiency, our barrels support high-speed production while maintaining product quality. Each screw barrel is engineered to meet specific requirements, offering reliability, long service life, and minimal maintenance.

## Together we progress.... together we prosper....



# Our Range of Extruder Models

we have a wide of extrudr models, which can meet the customer's choice

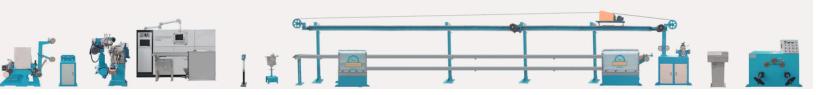
## **OUR MODEL**

25	38	45	50	60	65	80	90	100	120	150	175	
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OUR EXTRUSION LINE	EXTRUDER MODEL	MATERIAL	MAX OUTPUT PVC (KG/HR.)
25+25	25	PVC	15
38+25	38	PVC	35
50+25	45	PVC	80
65+25	50	PVC	90
38+65+45	60	PVC	120
45+80+45	65	PVC	150
80+50	80	PVC	285
100+65	90	PVC	350
120+80	100	PVC	450
150+90	120	PVC	650
175+80	150	PVC	950
175+100	175	PVC	1350
80+120+100			
80+150+100			

We can also customize extruders as per customer needs.

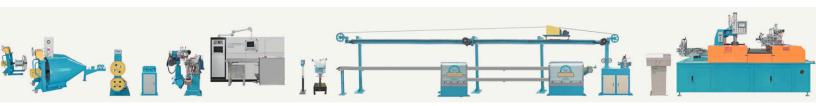
## **Solar Cable Extrusion Line**



## **Technical Parameter:**

Machine model	65+38	80+45	100+45		
Applicable Materials	PVC, Irradiated PVC ,LSHF, XLPE, XLPEFR XLPO Etc.				
Payout spool	DIN 630 - DIN 2600				
Take-up type	Swing Arm,Fix column and Portal type				
Take-up spool	DIN 630 - DIN 2600				
Screw Compression Ratio	26:1	26:1	25:1		
Extrusion Output Kg\hr (PVC)	150kg	285kg	450kg		
Main Motor Power	25KW 55KW 110KW				
Outgoing Speed	MAX200				

## **Automotive Wire High-Speed Insulation Extrusion Line**



## **Technical Parameter:**

Machine model	Pay-off type	Screw Diameter	Screw L/D Ration	Extrusion Output kg/hr Pvc	Mainframe Power	Adaptive Diameter	Line Speed	Take-up Type	Electrical Control
50+35		50mm	25:1	90kg/h	15KW	0.75-4MM	MAX500m/min	Dual Auto Change Over DIN 630	
65+38	Active/ Passive pay- off	65mm	26:1	150kg/h	22KW	0.8-8MM	MAX500m/min	Double-axis- mounted/ bundle DIN 630	Frequency control+ PLC control
80+45		80mm	26:1	285kg/h	55KW	2-18MM	MAX700m/min	Dual Auto Change Over DIN 800	

## **Teflon High Temperature Extrusion Line**



## **Technical Parameter:**

Machine Model	Screw Diameter	Screw L/D ration	Main Machine Power (HP)	Extruder Output kg/hr.	Conductor Diameter	Insulation Diameter
BRT-25	25mm	25:1	5 H.P	7.5	0.2-1.5mm	0.3-40mm
BRT-30	30mm	25:1	7.5 H.P	15	0.2-1.5mm	0.4-80mm
BRT-40	40mm	25:1	10 H.P	40	0.6-3.0mm	0.3-4.0mm
BRT-50	50mm	25:1	15 H.P	50	0.6-3.0mm	0.4-8.0mm
BRT-60	60mm	25:1	30 H.P	100	1.0-7.0mm	4.0 -32.omm

## **Building Wires High Speed Extrusion Line**



## **Technical Parameter:**

Machine model	Pay-off type	Screw Diameter	Screw L/D ration	Main Extruder Output Kg/hr	Mainframe Power	Adaptive diameter	Line Speed
38 + 65 +145		65mm	26:1	150kg/h	22 KW	1.2-10MM	
80+45+45	Active/	80mm	26:1	285kg/h	55 KW	2.0-2.0MM	
90+50+50	Passive pay-off	90mm	26:1	350kg/h	75 KW	5.0-42MM	
100+65+65		100mm	26:1	450kg/h	110 KW	5.0-42MM	

## Silicon Cable Extrusion Line



Machine Model	Extruder 45	Extruder 65	Extruder 90	Extruder 120
Main Motor (HP)	10	20	30	50
Extruder Output kg/hr.	30	60	150	250
Screw Diameter	45	65	90	100
L/D of Screw	12:1	12:1	14:1	14:1
Conductor Diameter	0.2-3.0	0.3-5.0	5.0-50	6.0-65
Finished OD	0.6-5.0	1.8-8.0	9-60	10-75
Vulcanizing length (meter)	12	16	24	28
Heater Power (Kw)	3x36 kw	3x48 kw	6x72 kw	7x84 kw
Production Speed (m/min)	6-80	6-80	4-40	4-40

## **Power Cable Extrusion Line**



Machine model	Take Up & Pay-off type	Screw Diameter	Screw L/D ration	Extrusion Output	Mainframe Power
80		80mm	26:1	285	55 KW
90	Fixed /Portal Type	90mm	26:1	350	75 KW
100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100mm	25:1	450	110 KW
120		120mm	25:1	650	132 KW
150	Portal Type	150mm	25:1	950	220KW
175	Portal Type	175mm	25:1	1350	280KW

## **Medium Voltage Power Cable Extrusion Line**



Conductor Cross Section Co/Al	25mm²-1000mm²
Wall + Thickness	
Inner Semicon (mm)	0.4-1.5
Insulation (XLPE)	2.5-13.5
Outer Semicon (mm)	0.4-2.5
Maximum Cable Diameter	75mm
Length of Line	120m
Max. Line Speed	25mtr/min
Extruder Combination	65/80/120
	80/80/120 80/100/120 80/100/150
Triple Cross Head	5B-35/75
Extruder Head Formation Construction	'Y' Type or W Type

## **Medium Voltage Covered Conductor Extrusion Line**

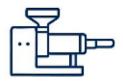


	2 2
Conductor Cross Section Co/Al	25mm - 1000mm
Wall + Thickness	
Inner Semicon (mm)	0.4-1.5
Insulation (XLPE)	2.5-13.5
Outer Semicon (mm)	0.4-2.5
Maximum Cable Diameter	75mm
Length of Line	120m
Max. Line Speed	25mtr/min
Extruder Combination	65/80/120
	80/80/120 80/100/120 80/100/150
Triple Cross Head	5B-35/75
Extruder Head Formation Construction	'Y' Type or W Type

We can also customize extruders as per customer needs.

## **UNIQUE SELLING PROPOSITION**

At Saiextrusiontek, our strength lies in delivering custom-engineered extrusion lines that combine precision, performance, and intelligent technology. Each system is designed to meet specific cable manufacturing requirements — whether PVC, XLPE, or Sioplas — ensuring superior product quality and consistent output. With complete in-house manufacturing, advanced SAI-Connect™ Pro lot integration, and strong technical support, we offer customers a perfect blend of innovation, reliability, and value. Backed by Bramah Xtrutek Inc., we bring together next-generation extrusion solutions trusted by leading cable manufacturers worldwide.



CUSTOM-ENGINEERED EXTRUSION LINES



SAI-CONNECT™ PRO IOT INTEGRATION



IN-HOUSE MANUFACTURING & SUPPORT

## **Latest IoT System**

## SAI-Connect™ Pro

Real-time visibility. Predictive uptime, Proven cable quality.

## WHY IT'S BETTER

- · Single-pane dashboard. Line speed.melt temp/pressure, die head temperatu-re zones, SPC for OD & eccentricity.
- · Quality-first analylics

Live Cp/Cok for OD & eccentricity automatic alarms when tolerance bands

· Predictive maintenance

Vibration & bearing temp, on on gearbox/ motor: Screw torque trends, filter differential pressure-Ai flags issues before stoppage

· Recipe & traceability

Lockable recipes iPVC/XLPE/Sloplas, Traceablitylot-wise material tracking, operator esign, audit trails

 Remote & secure mobile/web access, role-based permissions. encrypted data, optional on-pren + cloud backup

## KPIS EXAMPLE DASHBOARD



# OD-gauge Secure Cloud Server Heater zones

SAI-Connect\*

Edge

# Higher uptime (fewer unplaned stops) Consistent insulation OD & occentricity (fewer reworrks) Lower energy per km of-cable produced Faster changeovers with recipe recall and guided setup UPTIME QUALITY +2-5% QUALITY -20-30% ENERGY ENERGY

-8-12%

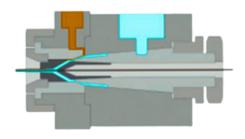
Recipes / Traceablity

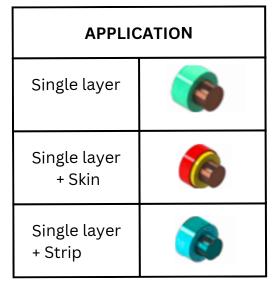
**KEY BENEFTITS** 



-8-12%

# CROSSHEAD SAI SL







Characteristics									
Crosshead size	07	14	18	30	50				
Min Conductor Ø	0.2	0.5	0.5	3	5				
Max Conductor Ø	5	10	13	25	45				
Max Insulation Ø	7	14	18	30	50				
Max tube die Ø	10	18	20	40	60				
Insulation: Solid stranded Wires									

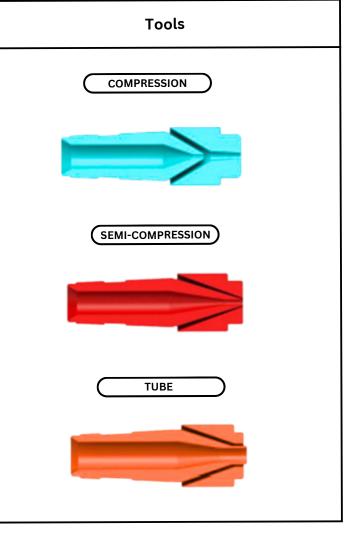
- Application: Telephone Wire, Building Wires, Automobile Wire Electronic cables, Energy cables, Power cables
- Compound: PVC,PE,PUR,PBT
- Centering: Fixed centering
- Layer: Single layer/Single layer+ Skin or Strip

## **FEATURE & STRENGTH**

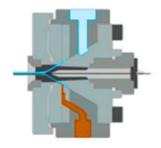
- -Distributions: Conical type cartridge
- -Simple structure and fixed center allows easy to clean and assemble and disassemble.
- -With change of front body makes various of operation
- -Gum space: Axial die adjustment

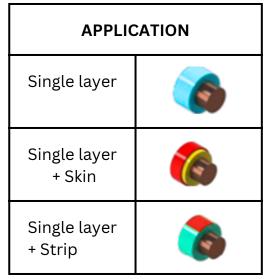
## OPTION

- -Connection: Connection flanges any type of extruder
- -Bypass: Manual/ Pneumatic
- -Breaker plate
- -Toolings: Hardened steel, Tungsten carbide, Diamond inserted
- -Accessories: Vacuum adapter



# **CROSSHEAD SAI FSL**







	Characteristics										
Crosshead size	0.5	0.7	14	25	35						
Min Conductor Ø	0.2	0.2	0.5	3	5						
Max Conductor Ø	2	5	10	14	25						
Max Insulation Ø	4	7	14	25	35						
Max tube die Ø	5	10	18	30	45						

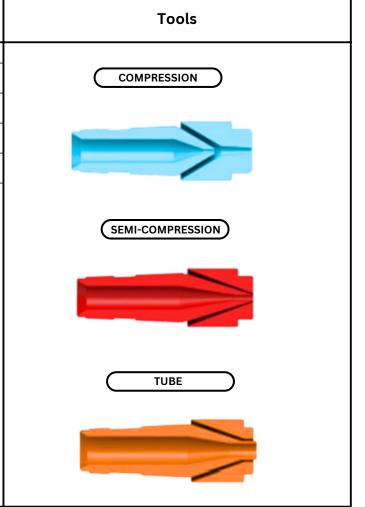
- Insulation: Solid stranded Wires
- Application: Telephone Wire, Building Wires, Automobile Wire Electronic cables, LAN Cables, fibers
- Compound: PVC,PE,PUR,PBT
- Centering: Fixed centering/ Mflex centering
- Layer: Single layer/Single layer+ Skin or Strip

## **FEATURE & STRENGTH**

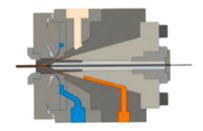
- -Distributions: Conical type cartridge
- -Simple structure and fixed center allows easy to clean and assemble and disassemble.
- -With change of front body makes various of operation
- -Gum space: Axial die adjustment

## **OPTION**

- -Connection: Connection flanges any type of extruder
- -Bypass: Manual/ Pneumatic
- -Breaker plate
- -Toolings: Hardened steel, Tungsten carbide, Diamond inserted
- -Accessories: Vacuum adapter



# **CROSSHEAD SAI SFS**

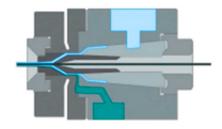


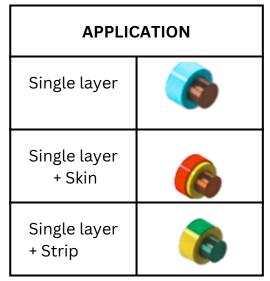
APPLICAT	TION
Dual layer (From+ Skin)	
Dual layer (Skin+ Foam)	
Triple layer (Skin+ Foam+ Skin)	

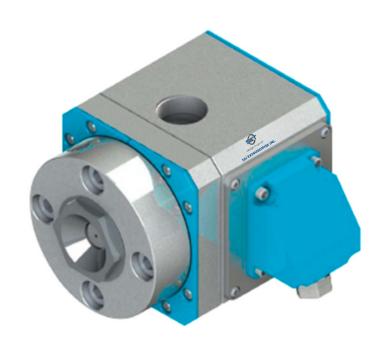


Characteristics	Tools
<ul> <li>Insulation: Solid stranded Wires</li> <li>Application: Telephone Wire, Building Wires, Automobile Wire Electronic cables, LAN Cables, fibers</li> <li>Compound: PVC,PE,PUR,PBT</li> <li>Centering: Fixed centering/ Mflex centering</li> <li>Layer: Single layer/Single layer+ Skin or Strip</li> </ul>	
FEATURE & STRENGTH	
-Distributions: Conical type cartridge -Simple structure and fixed center allows easy to clean and assemble and disassembleWith change of front body makes various of operation -Gum space: Axial die adjustment	
OPTION	
-Connection: Connection flanges any type of extruder -Bypass: Manual/ Pneumatic -Breaker plate -Toolings: Hardened steel, Tungsten carbide, Diamond inserted -Accessories: Vacuum adapter	

# **CROSSHEAD SAI SLF**







	Chai	racteris	stics		
Crosshead size	0.7	15	18	28	40
Min Conductor Ø	0.2	0.2	0.5	3	3
Max Conductor Ø	5	10	13	22	35
Max Insulation Ø	7	15	18	28	40
Max tube die Ø	10	18	20	35	50

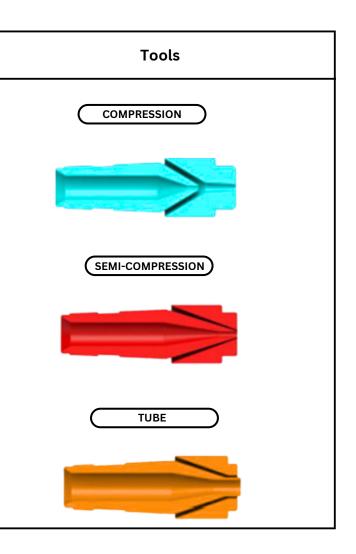
- Insulation: Solid stranded Wires
- Application: Telephone Wire, Building Wires, Automobile Wire Electronic cables, LAN Cables, fibers
- Compound: PVC,PE,PBT,PUR,LAN cables
- Centering: Fixed centering/ Mflex centering
- Layer: Single layer/Single layer+ Skin or Strip

## **FEATURE & STRENGTH**

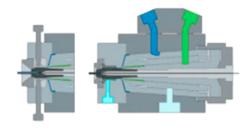
- -Distributions: Conical type cartridge
- -Simple structure and fixed center allows easy to clean and assemble and disassemble.
- -With change of front body makes various of operation
- -Gum space: Axial die adjustment

#### **OPTION**

- -Connection: Connection flanges any type of extruder
- -Bypass: Manual/ Pneumatic
- -Breaker plate
- -Toolings: Hardened steel, Tungsten carbide, Diamond inserted
- -Accessories: Vacuum adapter



# **CROSSHEAD SAI FSF**

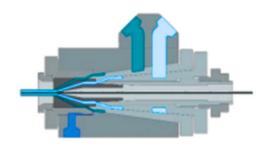


APPLICAT	ION
Foam+ Skin	
Skin+ Foam+ Skin	
Foam+ Skin+ Stripe	<b>**</b>
Foam+ Skin+ Stripe	



COMPRESSION
(SEMI-COMPRESSION)

# CROSSHEAD SAITL

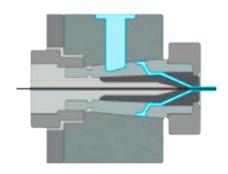


APPLICAT	ION
Single layer	
Dual layer	
Dual layer+ Skin	
Dual layer+ Stripe	*



Characteristics	Tools
<ul> <li>Conductor: Min 2~ Max 20mm</li> <li>Insulation: Max 30mm</li> <li>Tube die: Max 40mm</li> </ul>	COMPRESSION
<ul> <li>Insulation: Solid stranded Wires</li> <li>Application: Filling of building wire, Submarine cable, Jacketing, Energy cable</li> <li>Compound: PVC,PE,LSZH</li> <li>Centering: Fixed centering</li> </ul>	
Layer: Single layer/ Dual layer+ Skin or Stripe  FEATURE & STRENGTH	SEMI-COMPRESSION
-Distributions: 2 Conical type cartridge	
-Easy to clean-no holes or slots-no dead sports	
-Constant and smooth compound flow	
-Gum space: Axial die adjustment	
OPTION	
-Connection: Connecting flanges any type of extruder -Bypass: Manual/ Pneumatic -Breaker plate	
-Toolings: Hardened steel, Tungsten carbide, Diamond inserted -Accessories: Vacuum adapter	

# **CROSSHEAD SAI**



## **APPLICATION**

Single layer





Cha	aracteristic	cs	
Crosshead size	05	07	14
Min Conductor Ø	0.2	0.2	0.5
Max Conductor Ø	2	5	10
Max Insulation Ø	4	7	14
Max tube die Ø	5	10	18

• Application: Small solid and standard wire

Compound: PVC,PE,PUR,PA,PBT.

• Centering: Fixed centering

• Layer: Single layer

## **FEATURE & STRENGTH**

- -Head's width is small and compacts structure
- -Suitable to products requires small diameter and steel wire coating
- -Easy to clean and rapid assemble and disassemble with simple structure and fixed center.
- -Gum space: Axial die adjustment

#### **OPTION**

-Connection: Connection flanges any type of extruder

-**Bypass:** Manual/ Pneumatic

-Breaker plate

**-Toolings:** Hardened steel, Tungsten carbide, Diamond inserted

-Accessories: Vacuum adapter

**Tools** 





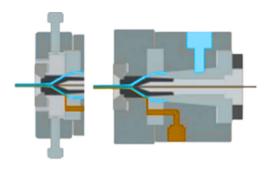
SEMI-COMPRESSION

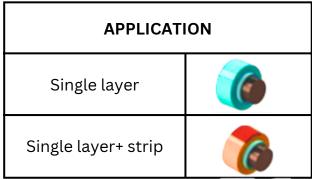


TUBE



# **CROSSHEAD SAI SLFM**







	Characte	eristics		
Crosshead size	07	15	20	28
Min Conductor Ø	0.2	0.2	0.5	3
Max Conductor Ø	5	10	13	22
Max Insulation Ø	7	15	20	28
Max tube die Ø	10	18	22	35

- Application: Optical fiber, Loose tube, Tight buffer, Zip cord with aramid
- Compound: PVC,PE,PBT,PA,LSZH
- Centering: Fixed centering/ Manual centering
- Layer: Single layer/ Single layer+ Stripe

#### **FEATURE & STRENGTH**

- -Distribution: Conical distribution cartridge
- -**Easy to clean:** No holes or shots, no dead spot
- -Constant and smooth compound flow, no stress and no shear in the melted compound
- -With change of front body makes various choice of operation
- -Gum space: Axial die adjustment

#### OPTION

- **-Connection:** Connection flanges any type of extruder
- -Bypass: Manual/ Pneumatic
- -Breaker plate
- **-Toolings:** Hardened steel, Tungsten carbide, Diamond inserted
- -Accessories: Vacuum adapter

# Tools





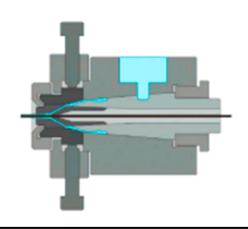




TUBE



# **CROSSHEAD SAI M**





Single layer





	Char	acteris	tics		
Crosshead size	07	14	18	30	50
Min Conductor Ø	0.2	0.5	0.5	3	5
Max Conductor Ø	5	10	13	25	45
Max Insulation Ø	7	14	18	30	50
Max tube die Ø	10	18	20	40	60

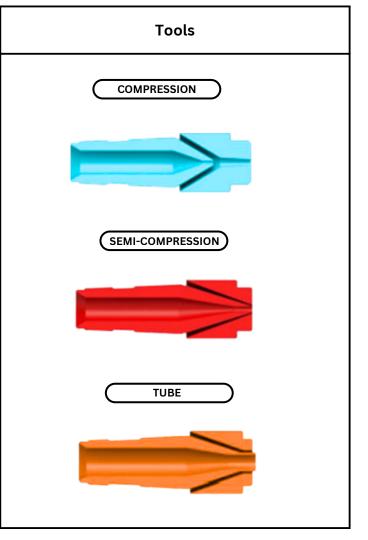
- Application: Automotive wire, Buildings wire, Jacketing, Data cable Power cable, Tube
- Compound: PVC,PE,PUR,PA,Centering: Manual centering
- Layer: Single layer

## **FEATURE & STRENGTH**

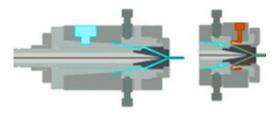
- -Distribution: Conical type cartridge
- -Excellent surface roughness and no bump structure can make smooth melted compound flow.
- -Easy to clean- No hole or slots, no dead spots
- -Gum space: Axial die adjustment

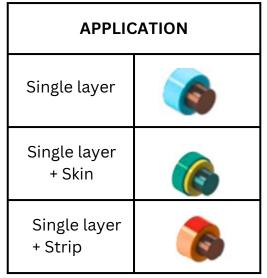
## OPTION

- **-Connection:** Connection flanges any type of extruder
- -Bypass: Manual/ Pneumatic
- -Breaker plate
- **-Toolings:** Hardened steel, Tungsten carbide, Diamond inserted
- -Accessories: Vacuum adapter



# **CROSSHEAD SAI VATB**







	Cł	naracto	eristic	s		
Crosshead size	20	30	40	55	65	80
Min Conductor Ø	2	2	5	5	10	10
Max Conductor Ø	15	25	35	50	60	75
Max Insulation Ø	20	30	40	55	65	80
Max tube die Ø	25	40	50	60	80	100

- Insulation: Solid and stranded wires
- Application: Jacketing, Buildings wires, Power cables, CATV cables, Drop cables, Tube
- Compound: PVC,PE,PA,LSZHCentering: Manual centering
- Layer: Single layer/ Single layer+ Skin or Strip

#### **FEATURE & STRENGTH**

- -Distribution: Conical type cartridge
- -Easy to clean- No hole or slots, no dead spots
- -Excellent surface roughness and no bump structure can make smooth melted compound flow.
- -With change of front body makes various choice of operation
- -Gum space: Axial die adjustment

## **OPTION**

- -Connection: Connection flanges any type of extruder
- -Bypass: Manual/ Pneumatic
- -Breaker plate
- -Toolings: Hardened steel, Tungsten carbide, Diamond inserted
- -Accessories: Vacuum adapter

## **Tools**

## COMPRESSION



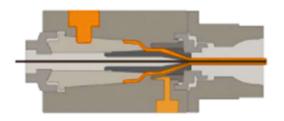
#### SEMI-COMPRESSION

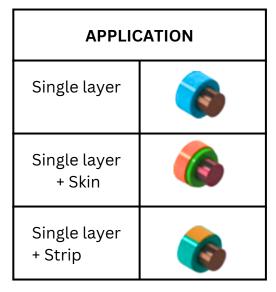


TUBE



# **CROSSHEAD SAI RM**

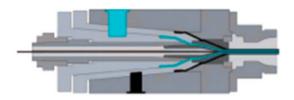


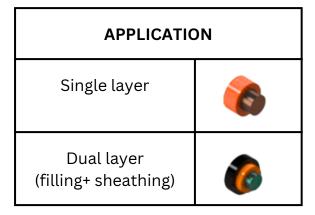




	Chara	acterist	tics		
Crosshead size	07	15	18	28	40
Min Conductor Ø	0.2	0.2	0.5	3	3
Max Conductor Ø	5	10	13	22	30
Max Insulation Ø	7	15	18	22	40
Max tube die Ø	10	18	20	35	50
<ul> <li>Application: Solid with reclaimed, CV Electronic, Submar</li> <li>Compound: PUBBI</li> <li>Centering: Fixed color Layer: Single layer, Heating: Water or of FEATURE &amp; STREN</li> </ul>	CV Lines, Ther narine cable BER,EVA, SILI centering, er/ Single layer oil circulation	rmoplastion ICONE,XL er+ Skin o	c rubber i		
ATURE & STREN stribution: Conica sy to clean- No ho nstant and smoot both melted comp m space: Axial die	cal type cartri nole or slots, i oth compoun mpound flow.	no dead s nd flow	spots		

# CROSSHEAD SAI DL

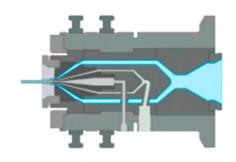


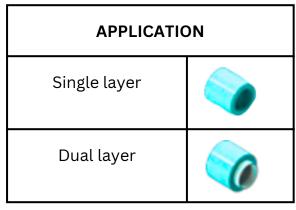




Characteristics	Tools
<ul> <li>Conductor: Min 0.2 ~ Max 12mm</li> <li>Insulation: Max 16mm</li> <li>Tube die: Max 16mm</li> <li>Application: Solid and stranded wires, Filling of building wire assembly with reclaimed. CV Line, Thermoplastic rubber insulation wire, Electronic, Submarine cable.</li> <li>Compound: Rubber, EVA, Silicone, XLPE</li> <li>Centering: Fixed centering</li> <li>Layer: Single layer/ Dual layer (Filling+ Sheathing)</li> <li>Heating: Water or oil circulation type</li> </ul>	SINGLE
FEATURE & STRENGTH  -Distributions: 2 conical type cartridge -Easy to claen: No hole or shots, no dead spots -Constant and smooth compound flow no stress and no shear in the melted compound	DUALE
-Gum space: Inner 1st wire guide-move back and by adjustment nut, Outer 2nd die-move back and forth by adjustment nut  OPTION	
-Connection: Connection flanges any type of extruder -Bypass: Manual/ Pneumatic -Breaker plate -Toolings: Hardened steel, Tungsten carbide -Accessories: CV tube front fitting	

# **CROSSHEAD SAI SH**

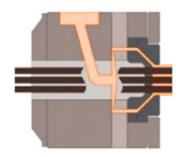






Characteristics				
Model name	SSHM-15	SSHM-30	SSHM-50	SSHM-80
Max tube die Ø	15	30	50	80
<ul> <li>Application: Air pres shrinking tube, Medi</li> <li>Compound: PVC,PE,</li> </ul>	um tube	_		ole, Thermal
<ul> <li>Centering: Manual ce</li> <li>Layer: Single layer/ [</li> </ul>	entering	DE,EVOII,I	Oi	
	-			
-Suitable to production		duction		
-Suitable to production for tube production -Possible to array straight line in narrow spaceA wall thickness can be adjusted by adjustment bolt				
	, ,	,		
OPTION -Connection: Connection	on flanges any	y type of ex	truder	
- <b>Bypass:</b> Manual/ Pneu		y type or ex	irudei	
-Breaker plate -Toolings: Hardened steel				
-Accessories: Vacuum adapter				
l				

# **CROSSHEAD SAIFH**



## **APPLICATION**

Single layer





Characteristics			
Crosshead Model	Applied size (Width x Height)		
SAI-20	20x3		
SAI-60	60x5		
SAI-80	80x6		
SAI-100	100x8		
SAI-120	120x13		

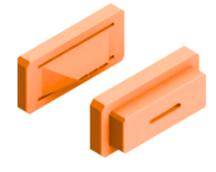
- Application: Computer cable, Auto cable, Elevator cable, Wire band, Boothbar insulation, Flat ribbon cables
- Compound: PVC,PE,PUR,PA
- Centering: Fixed centering,
- Layer: Single layer

#### **FEATURE & STRENGTH**

- **-Distribution:** Automatic balancing of upper and flow in the distribution cartridge.
- -Rapid tooling change, reduce down time
- -No bump structure in flow channel allows smooth compound flow and easy to clean.

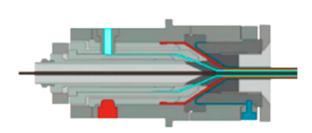
## OPTION

- -Connection: Connection flanges any type of extruder
- -Bypass: Manual/ Pneumatic
- -Breaker plate
- **-Toolings:** Hardened steel, **-Accessories:** Wire sorting device -Cross head holder or trolley



**Tools** 

## TRIPLE CROSSHEAD SAITCR



## **APPLICATION**

Single layer





Characteristics						
Crosshead size	SAI 35-75	SAI 50-90	SAI 70-130	SAI 70-150		
Cable diameter	6~ 75mm	10~90mm	15~ 150mm	30~150mm		
Inner thickness	0.3~ 2.0	0.3~2.0	0.4~ 3.0	0.5~ 3.0		
Insulation thickness	1.0~20	1.0~ 20	4.0~ 35	4.0~ 35		
Outer thickness	0.3~2.0	0.3~ 2.0	0.4~ 3.0	0.4~ 3.0		

#### **FEATURE & STRENGTH**

- -The SAI triple crosshead TCR model can produce triple layer for insulation of XLPE&EPR, Inner & outer layer of semi conductive compound and is employed for MV & HV in catanary lines (CCV) vertical lines (VCV).
- -Optimized distribution flow channels improved layer thickness tolerance and concentricity
- -Improve of surface roughness of flow channel and coating result in excellent durability and easy maintenance.
- -Zero centering to reduce working time makes to install the center and can adjust each layer with centering screw.

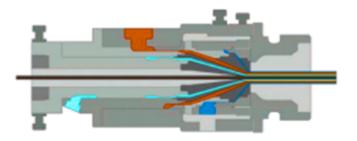
#### **OPTION**

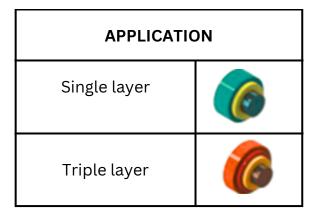
- **-Connection:** Connection flanges any type of extruder
- -Heating: Oil or water circulation+ band heater
- -Cleaning tool set and trolley
- -Toolings: Tip & die Hardened steel
- -Cleaning: Tip & die Hardened steel
- -Conductor guiding rollers

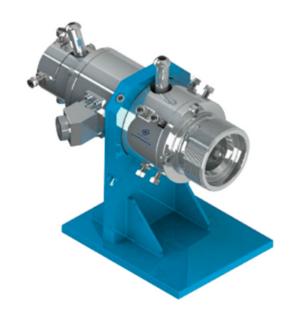


**Tools** 

# TRIPLE CROSSHEAD SAI MVHV







Characteristics				Tools	
Crosshead size	SAI 35-75	SAI 50-90	SAI 70-130	SAI 70-150	
Cable diameter	6~ 75mm	10~90mm	15~ 150mm	30~150mm	DUAL
Inner thickness	0.3~ 2.0	0.3~2.0	0.4~ 3.0	0.5~ 3.0	
Insulation thickness	1.0~20	1.0~ 20	4.0~ 35	4.0~ 35	
Outer thickness	0.3~2.0	0.3~ 2.0	0.4~ 3.0	0.4~ 3.0	
-The SAI triple crosshead MVHV can produce triple layer for insulation of XLPE&EPR, Inner & outer layer of semi conductive compound and is employed for MV & HV in catenary lines (CCV) vertical lines (VCV).  -Optimized distribution flow channels minimize layer thicker tolerance, thereby saving material -Structure for replacing tools for the shortest time and set temperature -Improved of surface roughness for flow channel and coating result			emi conducenary lines ( layer thicke	TRIPLE	
OPTION  -Connection: (Inner, Insulation, Outer) flanges, Breaker plate -Cleaning tool set and trolley: Swinging and tuning device -Toolings: Hardened steel, Tungsten carbide, Diamond inserted -Conductor guiding rollers					

# **EXTRUSION TOOLS**

Sai Extrusiontek INC. specializes in the design and manufacturing of precision extrusion tooling for cable, pipe, and profile extrusion lines. Each tool ensures perfect concentricity, uniform melt flow, and a superior surface finish for consistent product quality and long tool life.

## **Main Tooling Components**

#### Crosshead

Function: Distributes molten polymer evenly around the conductor during extrusion. Material: H13 /

1.2344 / Inconel / SS 420 / 440C

Hardness: 48-52 HRC (nitrided / chrome plated)

Die

Function: Shapes the extruded material to final dimension with precision and accuracy. Material: D2 /

H13 / Tungsten Carbide

Hardness: 58-62 HRC (mirror-polished)

Tip / Pin

Function: Centers the conductor and defines internal diameter of insulation or sheath. Material: SS 420

/ 440C / Carbide Tip Hardness: 52-60 HRC

**Breaker Plate** 

Function: Supports screen pack and ensures homogeneous melt before crosshead. Material: EN24 /

**EN36** 

Hardness: 45-50 HRC

**Adapter / Mounting Plate** 

Function: Connects extruder barrel to crosshead; ensures leak-free flow. Material: EN24 / SS 304 / 316

Hardness: 35-42 HRC

## **Surface Treatments & Coatings**

- Hard Chrome Plating (up to 25 µm) for corrosion and wear resistance.
- Nitriding for increased surface hardness and durability.
- Mirror Polishing of flow areas for smooth polymer movement.

## **Summary Table**

Compone	Material	Hardness	Applicati
Crosshea	H13 /	45-52	Cable &
Die	D2/H13/	58-62	Sheathing
Tip / Pin	SS 420 /	52-60	Cable
Breaker	EN24 /	45-50	Melt
Adapter	EN24 / SS	35-42	Mounting



# **OPTICAL FIBER TOOL**

Able to produce things requires high accuracy such as optical fiber coating applicator, coloring die, jelly filling system, resin applicator, including guid roller for making optical communication related cables.



# CARTRIDGE

The Deflector is an essential part of the extrusion crosshead, designed to ensure uniform and balanced polymer flow around the conductor. It evenly distributes the melt to achieve perfect concentricity, stable pressure, and consistent wall thickness in the final extruded product.

Material & Hardness H13 / DIN 1.2344 - 48-52 HRC High wear and heat resistance; nitrided surface.

SS 420 / 440C - 50-54 HRC Corrosion resistant and mirror polished.

Inconel 718 / 625 - 40-45 HRC Excellent strength at high temperature.

#### **Surface Finish**

- Nitrided or Hard Chrome Plated for extended life.
- Mirror Polished Flow Paths for smooth polymer flow and easy cleaning.

## **Advantages**

- Perfect melt balance and concentric extrusion.
- Reduced back pressure and improved material flow.
- Long tool life with easy maintenance.
- Suitable for PVC, PE, XLPE, LSZH, and other extrusion materials.

## **Applications**

- Wire and Cable Insulation Lines
- Sheathing Extrusion
- Pipe and Tubing Extrusion
- Multi-layer Extrusion Systems



# **Trusted by Leading Names**







































































Vindhya Telelinks Ltd.

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# SET SAI Extrusiontek Inc.

Let's go Original

# **WORLD'S BEST TECHNOLOGY AND QUALITY** IN EXTRUSION CROSSHEADS AND TOOLING

- Engineered for Precision, Performance, and Perfection.









- "At Sai Extrusiontek, we engineer cable extrusion lines, crossheads, and tooling with precision, reliability, and innovation at every step".
- "Our focus is simple to deliver consistent performance and perfection through advanced engineering and quality craftsmanship".

– Mohan Nambiar– Founder, Sai Extrusiontek Inc.



