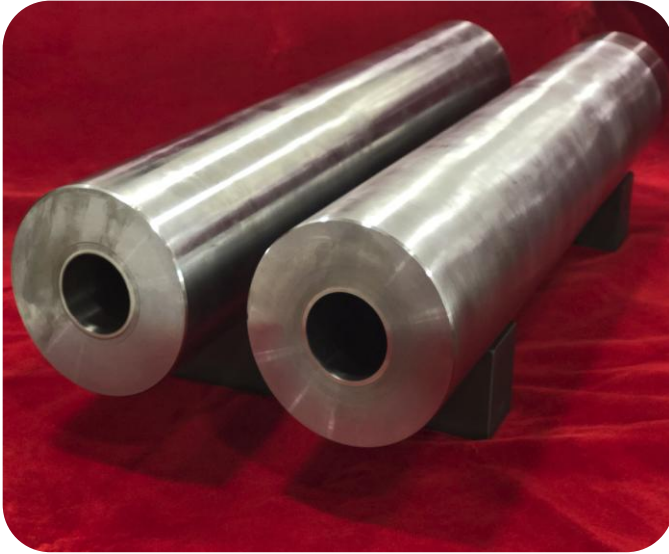




ITB



BONDING TWO METALS FOR YOUR SUCCESS



HIGH PRECISION HIGHER PERFORMANCE



Manufacturing of Nitrided & Bimetallic Barrel Set for plastic processing machinery.

COMPANY INTRODUCTION

Indotech Bimetal is an ISO 9001-2015 certified company, established in 2018 by a team of engineers. the company has dedicated and committed team to deliver high quality products and services that meet customer's expectations every time. the company views its ability to understand and internalize client goals as its greatest strength.

DIFFERENTIATED DESIGN, DYNAMIC DEVELOPMENT

At ITB, teams of innovative and creative engineers spearhead the design, manufacture and development of critical parts and assemblies for various industries. They are driven by a passion to keep improving the quality of the company's existing products, and to innovate new product solutions.

QUALITY AFFIRMATION

Comprehensive quality management systems enable ITB to deliver products and services that meet and exceed the expectations of customers. as part of the company's corporate way of life, motivated efforts are made towards continual improvement and competency enhancement at all levels.

OUR FOCUS AND STRENGTH

The Company's Focus Has Been On Investing In The Right People And Right Technology To Deliver The Best Quality In The Industries. And It Maintain Complete Confidentiality About The Customer's Design & Drawing. Indotech Bimetal Is Manufacturer And Supplier Of Bimetallic Barrel Set Like: Barrel, Screw, Ring Plunger Set, Injection Head & Nozzles Etc.. Comprehensive Quality Management Systems Enables Indotech Bimetal To Deliver Product And Services That Meet And Exceed The Expectation Of Customer. As Part Of The Company's Corporate Way Of Life, Motivated Efforts Are Made Towards Continuant Improvement And Competency Enhancement At All Levels.

ERP-DRIVEN ORDER TRACKING & PROCESS CONTROL

At work in ITB is the company's own, self-developed ERP system, which enables it to control quality and efficacy at each and every stage by inspection,



our mission is always to serve high quality products with latest technologies to our customer day by day.

BIMETALLIC CYLINDER MANUFACTURING PRODUCTION LINE

We have high precision CNC Scada based production line which is provide two jobs per hour production with human error free.



Bimetallic barrel inlay coating grade selection

GRADE	INLAY LAYER METAL	HARDNESS HRC	OPERATING TEMP °C	WEAR	CORROSION
B100	Fe	55-60	< 300°C	★★★★	★★★
B800	NiWc	60-65	< 450°C	★★★★★	★★★★



Barrel Size

SIZE	OUTER DIA	HOLE DIA	LENGTH
MIN >	Ø100	Ø30	800
MAX >	Ø350	Ø150	4000

MATERIAL GRADES

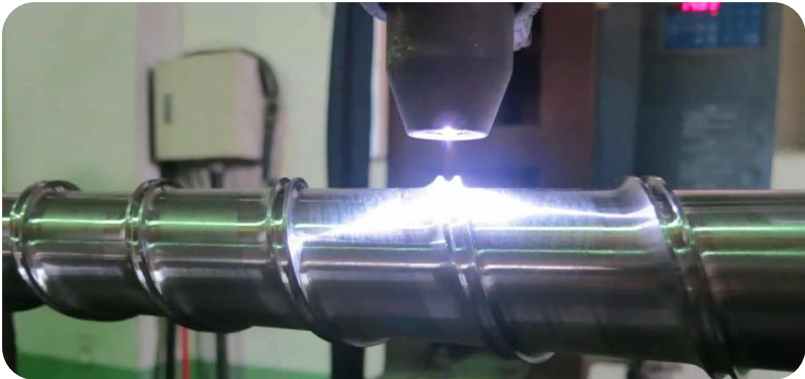
MATERIAL	HTT TREATMENT	HRC
41CrAlMo7	Gas Nitride	55 - 60 HRC
34CrNiMo6	Hardening	50 – 55 HRC



SCREW SELECTION

We Supply All Types Of Screw As Per Our Clients Requirement, You Will Get Precisely What You Need From Raw Material To The Finished One. We Are Specialized In Supplying Most Different Type Of Screws. The Processing Technology And Advantages Of Designed The Screws Are Used In General Processing Of All Kinds Of Thermoplastic And Rubber Materials In Extrusion And Injection Molding.

PTA Welding



LASER CLADING



Coating Thickness Up to 0.5-1.5 mm

SCREW SIZE

SIZE	OUTER DIA	LENGTH
MIN >	Ø30	800
MAX >	Ø125	3200

MATERIAL SELECTION

MATERIAL	HEAT TREATMENT	HRC
42CrMo4	HARDENING	50-55
34CrNiMo6	HARDENING	58-60
41CrAlMo7	GAS NITRIDING	60-65



BIMETALLIC SCREW GRADES FOR SELECTION

GRADE	LAYER METAL	HARDNESS HRC	OPERATING TEMP °C	WEAR RESISTANCE	CORROSION RESISTANCE
S1000	NiCr	45-50	< 500°C	★★★★	★★★★
S3000	NiWc	58-62	< 650°C	★★★★★	★★★★



NON-RETURN VALVE SELECTION

We supply ring plunger / Non return valve as per customer request both of normal and clutch type. Ring plunger set has important roll for molding process.

MATERIAL SELECTION

MATERIAL	HEAT TREATMENT	HRC
34CrNiMo6	Hardening	58-60
41CrAlMo7	Gas Nitriding	60-65
X40CrMoV51	Hard – Gas Nitriding	58-65



High wear / friction and pressure are developed at the time of molten plastic feed. In this concern we provide some coating solution as per below.

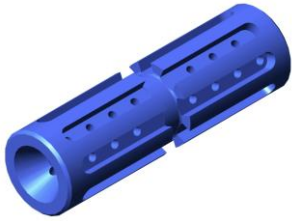
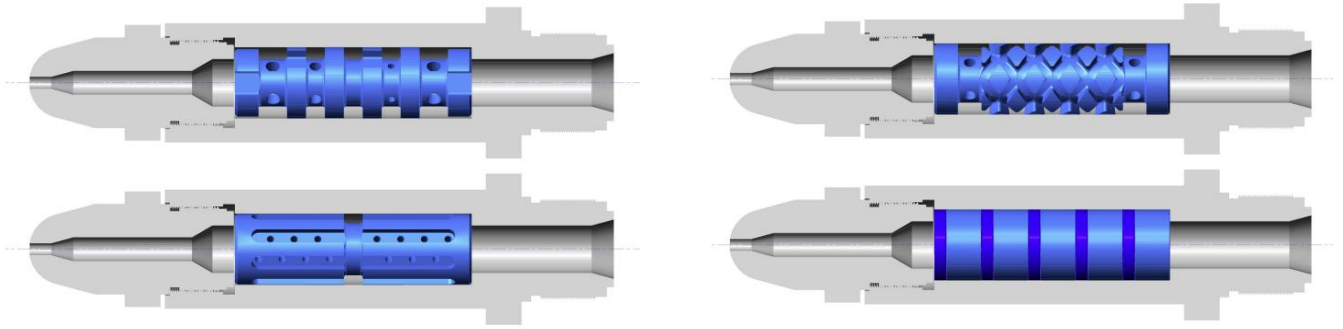
COATING SELECTION

GRADE	COATING THICKNESS	HARDNESS HRC	WEAR RESISTANCE
Hard chrome plating	25-35 μ	58 - 62 HRC	★★★
PVD TiN	2.5 -3.0 μ	2800 HV0.05	★★★★★
PVD AlTiN	2.2 – 3.2 μ	2800 HV0.05	★★★★★
PVD AlTiCrN	2.0 – 3.0 μ	2800 HV0.05	★★★★★

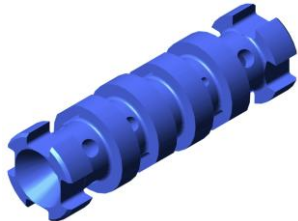


MIXING / FILTRATION NOZZLE SELECTION

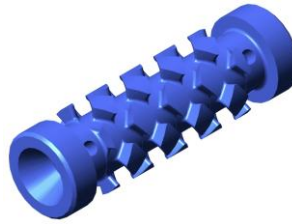
There are many types of nozzle tips use in the injection molding process,



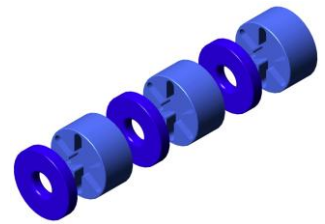
MNCD30100T1



MNCD30100T2



MNCD30100T3



MNCD30CT1

Nozzle can Manufacturing customized as per customer's request.

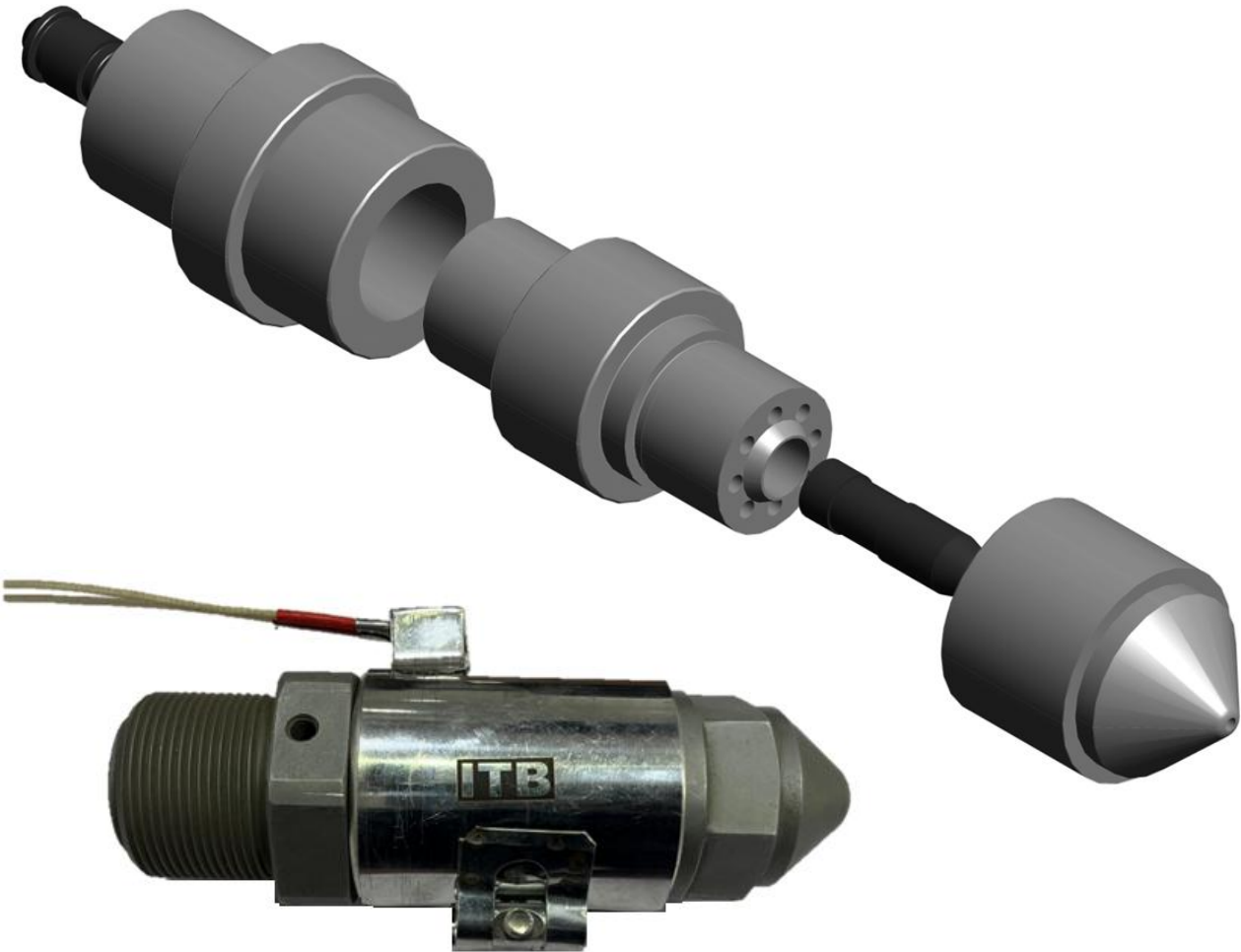
Use of filtration / mixing nozzles to clean and purify molten plastic, filter / block any unwanted particles during injected into a mold.

These nozzles helps to improving the quality of the final product. We have different types of cartridges designed for various plastic filtration and mixing needs. Finding the right cartridge involves a customized process, and we perform physical tests on the machine to ensure it's suitable cartridge for application.



SHUT-OFF SPRING NOZZLE SELECTION

Avoid drooling of molten plastics after injection.

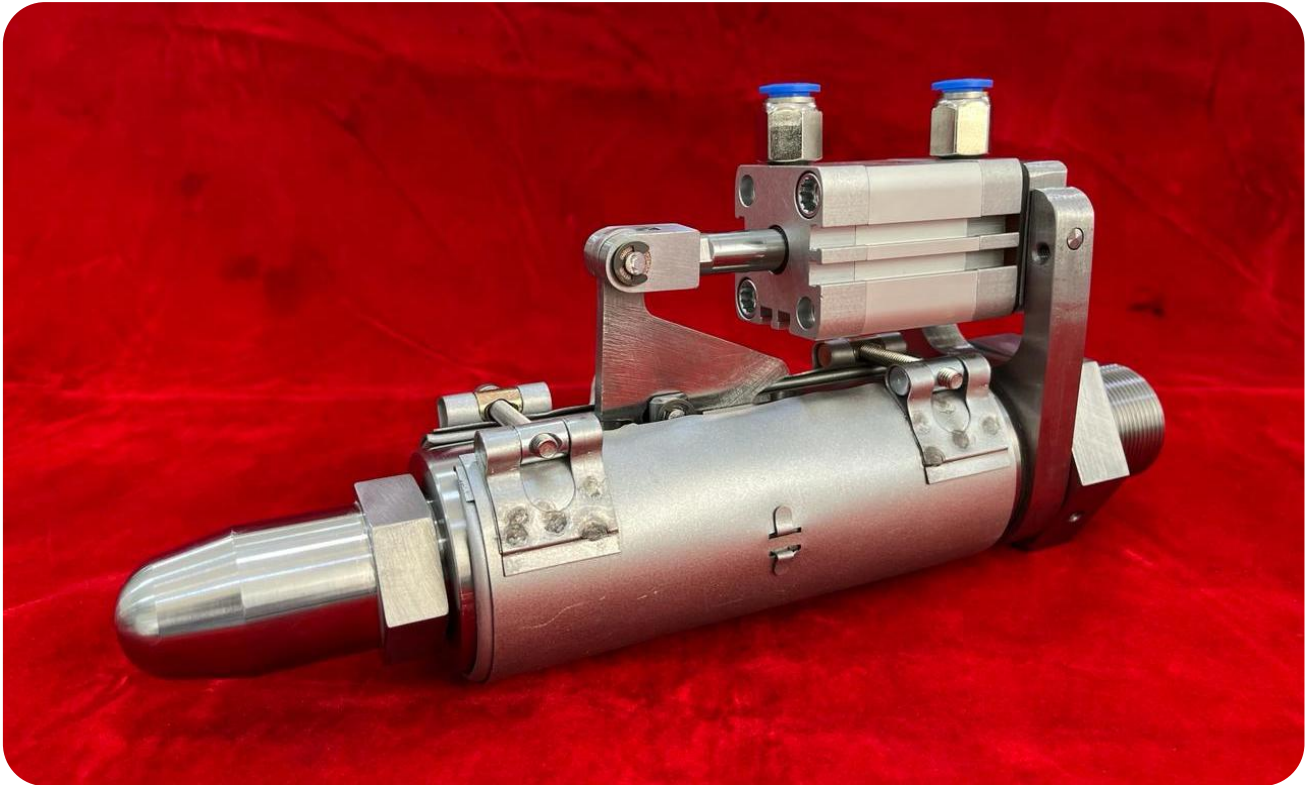


This nozzle operates on a mechanical principle and is designed for a low-frequency injection process. It prevents the issue of molten plastic drooling, especially with low-viscosity plastics like PA, PPS, PE, and POM, after the injection is completed.

Description	SN4070	SN80100	SN110125
Screw Diameter Size (mm)	40 - 70	80 - 100	110 - 125
Short Weight (grams)	200 – 800	900 – 1100	1200 - 4000
Open Pressure (Bar)	200 - 300		
Close Pressure (Bar)	100		
Injection pressure Max (Bar)	2500		
Working temperature (Celsius)	350		

SHUT-OFF NOZZLE GVT

Control molten plastic after injection precisely.



The SNGVT shut-off nozzle is employed to reduce cycle times by synchronizing with the screw feeding during mold opening. This model utilizes both pneumatic and hydraulic actuators. The SNGVT, with its in-line gate valve design, helps avoid drops in large flow with low pressure. It quickly achieves purging and color changes, similar to an open nozzle, making it suitable for high-speed and high-throughput applications, as well as materials sensitive to shear forces and those with high viscosity. This design is particularly effective in controlling the rapid drooling of low-viscosity materials. Unlike a needle shut-off system, the separation happens away from the mold.

Description	SNGVT1	SNGVT2
Screw Diameter Size (mm)	70 - 90	100 - 130
Shot Weight (grams)	700 - 4000	5000 – 8000
Air Pressure (Bar)	6 - 8	8 - 10
Injection pressure Max (Bar)	3000	
Working temperature (Celsius)	350	



INDIA



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