

**Your Best Partner  
For Providing High-efficient  
Plastics Solutions.**



**BRILLIANT TECHNOLOGY CO., LTD  
BRILLIANT TECHNOLOGY INTERNATIONAL CO., LIMITED**



# ABOUT US

Founded in 1995, Brilliant Technology are a professional manufacturer and exporter of screws and barrels for plastics and rubber industry over 25 years.

We always believe "Quality is everything". We are very strict with every small step and utmost to make it perfect in manufacturing. This is the only reason why our customers choose us during lots of companies.

"Brilliant Technology, Let's Make Your Plastics Brilliantly!"

- 25 Years Experience
- 30,000 Working Area
- 25,000 Pieces Capacity
- 150 Employees
- ISO9001: 2015 Certificated
- Standard Operation Process (SOP)
- One-Stop Service (OSS)
- Professional Team (PT)
- Advanced Domestic/Imported and Semi-automatic/Fully-automatic Equipment



# Brilliant Technology's Value & Mission:

## OUR VALUE:

At Brilliant Technology our value is to be proactive and honest for every customer; be diligent and meticulous for every order.

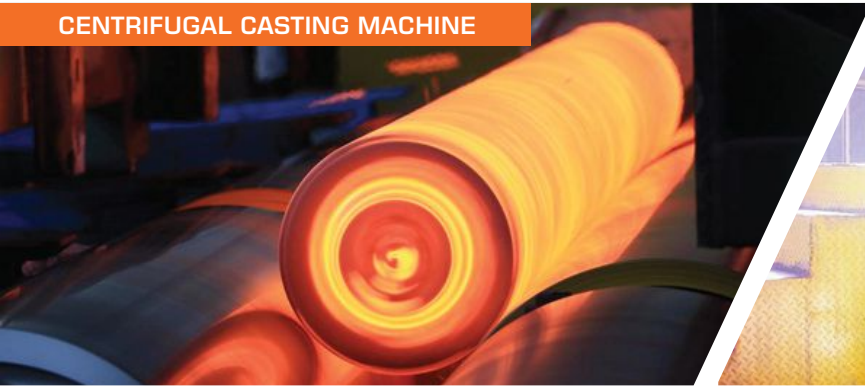
## OUR MISSION:

At Brilliant Technlogy our mission is to do our part in seeing that our customers have cost-saving, sustainable and brilliant plastic productions.



# Equipment:

CENTRIFUGAL CASTING MACHINE



GAS NITRIDING FURNACE



CNC BORING MACHINE



CNC LATHE MACHINE



VERTICAL HONING MACHINE



NEW CNC MACHINE



CENTRIFUGAL CASTING MACHINE FOR BIMETALLIC BARRELS



PTA MACHINE FOR BIMETALLIC SCREWS



4-AXIS CNC MACHINING CENTER



4-AXIS CNC MACHINING CENTER



# Main Technical Data For Our Screws And Barrels

- Hardening and Tempering Hardness: HB280-320
- Nitrided Hardness: HV900-1200
- Nitrided Layer Depth: 0.5-0.8mm
- Nitrided Brittleness: Less than Grade 2
- Surface Roughness: Ra 0.4
- Screw Straightness: 0.015mm
- Thickness of chrome-plating layer: 0.03-0.05mm



**东北特殊钢集团有限责任公司 钢材产品合格证明书**  
本公司通过质量管理体系认证 ISO9000、2016.12.27.2016、2016.02.29.2016 质量管理体系认证

合同号: B0161106-0003	客户: 烟台通和机械有限公司	炉号: B0161106	规格: 42CrMo	加工规格: 规格符合 GB
订单号: 16114052894	合同号: B0161106	炉号: B0161106	规格: 42CrMo	加工规格: 规格符合 GB
长度: 6400	重量: 3908	炉号: B0161106	规格: 42CrMo	加工规格: 规格符合 GB
生产日期: 2016-05-27	重量: 3908	炉号: B0161106	规格: 42CrMo	加工规格: 规格符合 GB
日期: 2016-05-27	重量: 3908	炉号: B0161106	规格: 42CrMo	加工规格: 规格符合 GB

一、化学成分  
二、力学性能  
三、尺寸性能  
四、表面质量  
五、包装、标志、运输、贮存  
六、其他说明

备注: 1. 本证明书只对本批产品有效, 不作为其他产品的合格证明。  
2. 本证明书不作为产品的唯一标识, 不作为产品的唯一证明。  
3. 本证明书不作为产品的唯一标识, 不作为产品的唯一证明。

东北特殊钢集团有限责任公司 2016年5月27日

# Bimetallic Single and Twin Screws

Bimetallic single and twin screws have a longer lifetime than standard nitrided single and twin screws. They are widely used for corrosive formula, recycled and regrinded resin, calcium carbonate powder filling, fireproof materials and glass fiber filling materials.

## Popular Alloy Powders For Bimetallic Single and Twin Screws:

- Kennametal Stellite Ni60
- Kennametal NiWC35
- Colmonoy 56
- Colmonoy 83
- Tungsten Carbide



Suitable for	Single Screw, Twin Parallel Screw, Twin Conical Screw		
Alloy Type	Ni60	Colmonoy 56	Colmonoy 83
Alloy Components	Ni+Cr+Fe+Si	Ni+Cr+Si+Fe	Ni+Wc+Cr+C
Anti-Wearing Level	★★★	★★★	★★★★
Anti-Corrosion Level	★★★★	★★★★	★★★★
Alloy Thickness	1~1.5mm	1~1.5mm	1~1.5mm
Hardness	HRC 56~62	HRC 53~58	HRC 50~55
Base Steel Vastly Used	38CrMoAlA(1.8509), 34CrAlNi7(1.8550), 31CrMoV9(1.8519), 42CrMo(AISI4140)		

Mark in the list: ★★★★★ Excellent ★★★★★ Very Good ★★ Good

## PTA hardfacing on screw flights



# Bimetallic Single and Twin Barrels

Bimetallic single and twin barrels have a longer lifetime than standard nitrided single and twin barrels. They are widely used for corrosive formula, recycled and reground resin, calcium carbonate powder filling, fireproof materials and glass fiber filling materials.

## Popular Alloy Powders For Bimetallic Single and Twin Barrels:

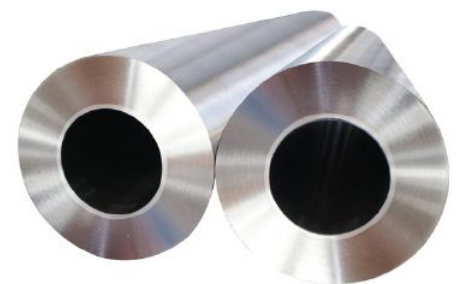
- Fe-base alloy
- Nickel-base alloy
- Co-base alloy
- Tungsten Carbide alloy



Alloy Type	BTIO1 Alloy	BTIO2 Alloy	BTIO3 Alloy	BTIO4 Alloy
Alloy Components	Fe+Ni+Cr+B	Ni+Cr+Co+B	Ni+Cr+Co+V+B	Ni+Wc+Cr+B
Wearing Resistance	★★★★	★★	★★★	★★★★★
Corrosion Resistance	★★	★★★★	★★★	★★★★
Alloy Thickness	2-3mm	2-3mm	2-3mm	2-3mm
Hardness	HRC 58~62	HRC 50~58	HRC 55~60	HRC 55~60
Temperature Area (°C)	≤400	≤450	≤450	≤600
Coefficient Thermal RT~250°C	11.0x10 <sup>-6</sup>	11.0x10 <sup>-6</sup>	11.5x10 <sup>-6</sup>	11.0x10 <sup>-6</sup>
Expansion (/°C) RT~400°C	11.4x10 <sup>-6</sup>	11.4x10 <sup>-6</sup>	12.4x10 <sup>-6</sup>	12x10 <sup>-6</sup>
Base Steel Vastly Used	40Cr	40Cr	40Cr	40Cr

Mark in the list: ★★★★★ Excellent ★★★★★ Very Good ★★ Good

## Bimetallic barrels manufactured by centrifugal casting:



# Parallel Twin Screws and Barrels

Parallel twin screws and barrels are the core components of parallel twin screw extruders. They are widely used for the extrusion of RPVC, CPVC, WPC, PE pipes, tubes, profiles, boards, sheets, and granules.

## Diameters Available For Parallel Twin Screws and Barrels:

- $\phi 25 \sim \phi 250$

## Standard Steels Used For Parallel Twin Screws and Barrels:

- 38CrMoAlA (DIN1.8509)
- 34CrAlNi7 (DIN1.8550)
- 31CrMoV9 (DIN1.8519)

## Optional Surface Treatment For Parallel Twin Screws and Barrels:

- Fully nitrided for parallel twin screws and barrels
- Bimetallic alloy coating for the output parts of the parallel twin screws
- Bimetallic alloy coating for the whole parallel twin screws
- Chrome-plating for the whole parallel twin screws
- Bimetallic grooves at the output parts of the parallel twin barrel
- Bimetallic tungsten carbide alloy liner for the whole parallel twin barrel
- SKD61 liner for the whole parallel twin barrel



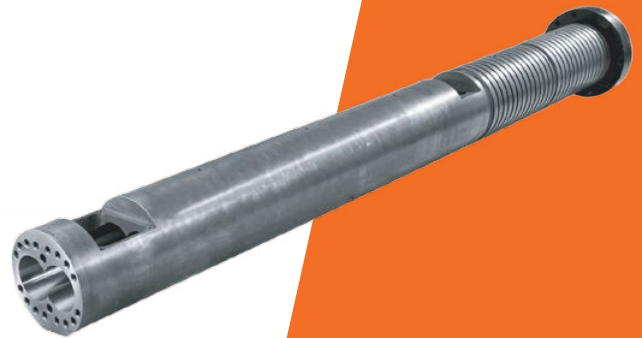
# Parallel Twin Screws and Barrels

## Material Applications For Parallel Twin Screws and Barrels:

- Panel extrusion
- Profile extrusion
- Sheet extrusion
- Pipe extrusion
- Board extrusion
- Compound extrusion
- Foam extrusion

## Drawings of Famous Brands Available:

- Cincinatti Milacron
- BANDREA
- BAUSANO
- BATTENFELD
- DAVIS STANDARD
- KABRA
- KRAUSS MAFFEI
- MAPLAN
- MIKROSAN
- Reifenhauser
- ROLLERPAL
- THEYSOHN
- WEBER
- WINDSOR



# Conical Twin Screws and Barrels

Conical twin screws and barrels are the core components of conical twin screw extruders. They are widely used for the extrusion of RPVC, CPVC, WPC, PE pipes, tubes, profiles, boards, sheets, and granules.

## Diameters Available For Conical Twin Screws and Barrels:

- $\phi 24/52 \sim \phi 188/330$

## Standard Steels Used For Conical Twin Screws and Barrels:

- 38CrMoAlA (DIN1.8509)
- 34CrAlNi7 (DIN1.8550)
- 31CrMoV9 (DIN1.8519)

## Optional Surface Treatment For Conical Twin Screws and Barrels:

- Fully nitrided for conical twin screws and barrels
- Bimetallic alloy coating for the output parts of the conical twin screws
- Bimetallic alloy coating for the whole conical twin screws
- Chrome-plating for the whole conical twin screws
- Bimetallic grooves at the output parts of the conical twin barrel
- SKD61 liner at the output parts of the conical twin barrel



# Conical Twin Screws and Barrels

## Material Applications For Conical Twin Screws and Barrels:

- Panel extrusion
- Profile extrusion
- Sheet extrusion
- Pipe extrusion
- Board extrusion
- Compound extrusion
- Foam extrusion



## Drawings of Famous Brands Available:

- Cincinatti Milacron
- DAVIS STANDARD
- IDE
- JWELL
- JINHU
- KRAUSS MAFFEI
- LIANSU
- MAPLAN
- THEYSOHN
- WEBER



# Single Extruder Screws and Barrels

Single extruder screws and barrels are the core components of single screw extruders. They are widely used for the extrusion of PVC, PP, PE, PC, PS, PET, ABS, PMMA, rubber and the other materials.

## Diameters Available For Single Extruder Screws and Barrels:

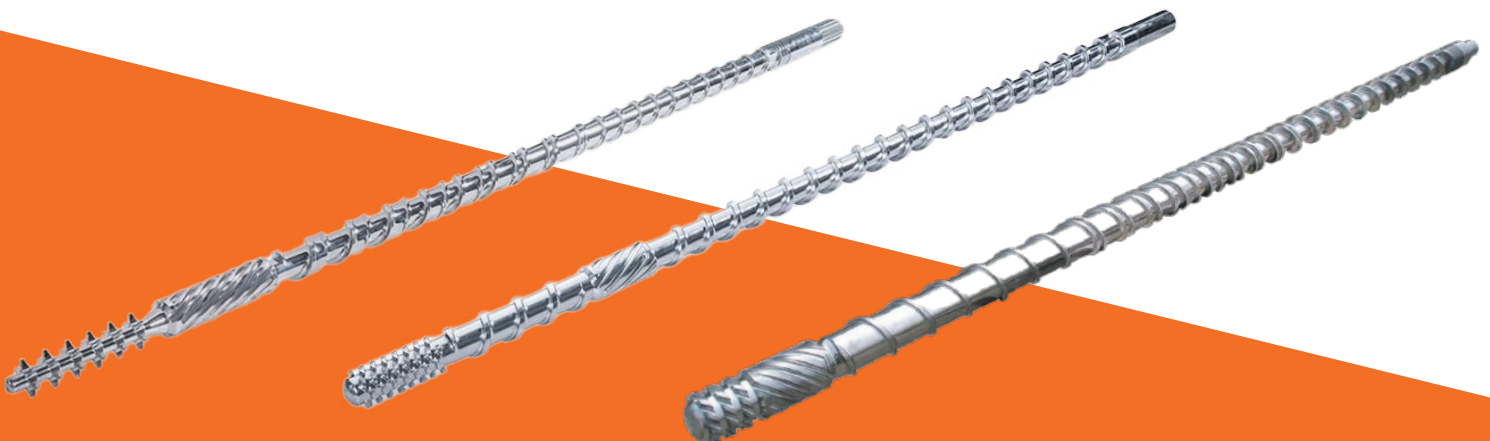
- $\phi 10 \sim \phi 600$

## Standard Steels Used For Single Extruder Screws and Barrels:

- 38CrMoAlA (DIN1.8509)
- 34CrAlNi7 (DIN1.8550)
- 31CrMoV9 (DIN1.8519)
- 42CrMo (AISI4140)
- 40Cr (AISI4340)
- D2 (DIN1.2379)
- SKD11
- SKD61
- Hastelloy 276
- Inconel 625

## Optional Surface Treatment For Single Extruder Screws and Barrels:

- Fully nitrided for single extruder screws and barrels
- Bimetallic alloy Ni60 coating for the whole single extruder screw
- Bimetallic alloy Colmonoy56 coating for the whole single extruder screw
- Bimetallic alloy Colmonoy83 coating for the whole single extruder screw
- Chrome-plating for the whole single extruder screw
- PVD coating for the whole single extruder screw
- Bimetallic grooves at the output parts of the single extruder barrel
- Fe-base bimetallic liner for the whole single extruder barrel
- Nickel-base bimetallic liner for the whole single extruder barrel
- Tungsten carbide bimetallic liner for the whole single extruder barrel



# Single Extruder Screws and Barrels

## Material Applications For Single Extruder Screws and Barrels:

- Blown film extrusion
- Blow molding extrusion
- Sheet extrusion
- Profile extrusion
- Pipe and tube extrusion
- Cable and wire extrusion
- Pellets recycling extrusion
- Foam extrusion
- Rubber extrusion



# Injection Molding Screws and Barrels

Injection molding screws, barrels, tie-bars and accessories are the core components of injection molding machines. They are widely used for PVC, PP, PE, PS, PC, PO, PET, PMMA, AS, ABS, TPU, TPR, TPE, Nylon and the other plastic injection products.

## Diameters Available For Injection Molding Screws and Barrels:

- $\phi 15 \sim \phi 300$

## Standard Steels Used For Injection Molding Screws and Barrels:

- 38CrMoAlA (DIN1.8509)
- 34CrAlNi7 (DIN1.8550)
- 31CrMoV9 (DIN1.8519)
- 42CrMo (AISI4140)
- 40Cr (AISI4340)
- D2 (DIN1.2379)
- SKD61 (H13)
- Hastelloy 276
- Inconel 625

## Optional Surface Treatment For Injection Molding Screws and Barrels:

- Fully nitrided for injection molding screw and barrel
- Vacuum quenching for the whole injection molding screw
- Bimetallic alloy Ni60 coating for the whole injection molding screw
- Bimetallic alloy Colmonoy56 coating for the whole injection molding screw
- Bimetallic alloy Colmonoy83 coating for the whole injection molding screw
- Chrome-plating for the whole injection molding screw
- PVD coating for the whole injection molding screw
- Fe-base bimetallic liner for the whole injection molding barrel
- Nickel-base bimetallic liner for the whole injection molding barrel
- Tungsten carbide bimetallic liner for the whole injection molding barrel



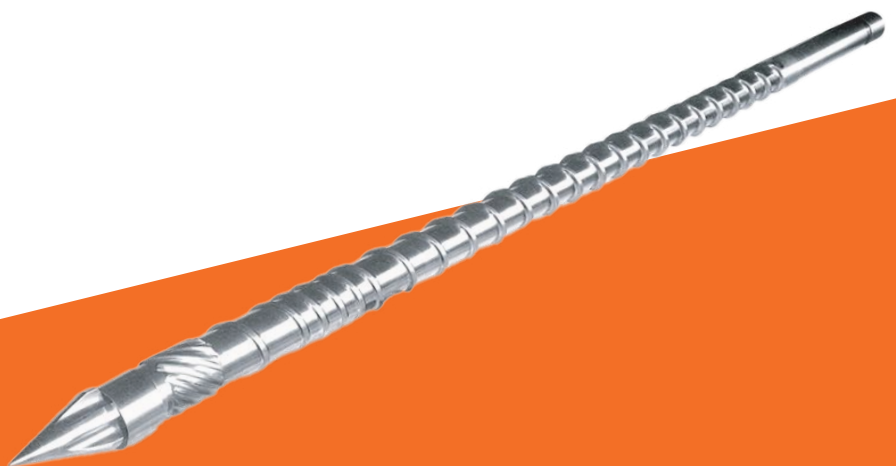
# Injection Molding Screws and Barrels

## Applications For Injection Molding Screws and Barrels:

- Automotive industry
- Packaging industry
- Medical industry
- Electronics industry
- Logistics industry
- Consumer goods industry

## Drawings of Famous Brands Available:

- HAITIAN International
- YIZUMI
- ARBURG
- BOY
- ENGEL
- Husky Injection Molding Systems
- Negri Bossi
- Sumitomo Demag
- ROMI
- TOSHIBA
- JSW
- SANDRETTO





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