EUROVITI

Euroviti is one of the few companies that can guarantee valuable support in the development of new screw profiles.

New compounds, additives and processes that are increasingly complex need to be processed according to their characteristics.

This brochure illustrates 15 screw models, 7 for injection and 8 for extrusion, which can be customised for any type of compound used.
High Performance Screw, with variable pitch. The three feed, compression and metering phases all differ. The characteristics change depending on the effect required - low compression, increased mixing or stronger crest in the feed section.

High Performance Barrier Screw, have a lamination effect that prevents unmolten particles being present, despite an increase in flow rate compared with standard triple-section screws. The extent of the barrier and the spiral Maddock mixer are designed according to requirements.

High Performance Extrusion Screw, with different profiles depending on area of application. Most have a barrier profile in addition to a mixer. Clearly, appropriate profiles are examined in relation to the application sector, L/Ds available and the compound used.
PROFILE

HPS

HIGH PERFORMANCE SCREW

The latest variable pitch screw profile with low compression ratio.

Universal for all types of material, particularly suited to long fibreglass charge. The shape of this profile limits fragmentation of the fibre, which usually occurs with standard screws.

Advantages:

- increase in production
- increased efficiency
- excellent cast quality
- reduction in pressure
- reduction in melting temperature
- reduction in fibre breakage
- 30% reduction in charging times compared with standard screws
- rapid colour and material change
- energy savings between 10-20% more compared with screws normally used
- reduced wear and tear

Universal screw for all types of material:

PROFILE

HPS MIX
HIGH PERFORMANCE SCREW MIXING

The latest variable pitch screw profile with low compression ratio plus mixer.

Universal for all types of material as with the HPS, with a variation in the mixer for mixing/homogenising hot and cold plastic flows and spreading dyes more efficiently. Unlike the HPS it is not suited to charges of long fibreglass as the mixer would increase fragmentation of the fibre.

Advantages:
- Increase in production
- Increased efficiency
- Excellent cast quality
- Reduction in pressure
- Reduction in melting temperature
- Improved mixing/homogenisation
- 30% reduction in charging times compared with standard screws
- Rapid colour and material change
- Energy savings between 10-20% more compared with screws normally used
- Reduced wear and tear

Universal screw for all types of material:

www.euroviti.com info@euroviti.com
HPS Strong
High Performance Screw Strong

The latest variable pitch screw profile with low compression ratio and reinforced thread.

Universal for all types of material as with the HPS, it is particularly suited to charges of long fibreglass. The shape of this profile limits fragmentation of the fibre, which usually occurs with standard screws. The shape of the reinforced crest also increases resistance to wear and tear in the case of considerable charges (FV – CaCo3 – MINERALS) and heterogeneous recycled ground materials.

Advantages:
- Increase in production
- Increased efficiency
- Excellent cast quality
- Reduction in pressure
- Reduction in melting temperature
- Reduced fibre breakage
- 30% reduction in charging times compared with standard screws
- Rapid colour and material change
- Resistance to wear and tear from recycled/ground materials

Universal screw for all types of material:
**PROFILE**

**HPB SHORT BARRIER**

**HIGH PERFORMANCE SHORT BARRIER**

The latest variable pitch screw profile with low compression ratio plus barrier.

Versatile for all types of material, particularly suited to tackling mastering/plasticising/mixing issues. 30-40% reduction in charging times compared with standard screws.

**Vantaggi:**

- Increase in production
- Increased mastering/plasticizing/mixing efficiency (transparent)
- 30-40% reduction in charging times compared with standard screws
- Excellent cast quality
- Reduction in pressure
- Reduction in melting temperature
- Rapid colour and material change

**Versatile screw for all types of material:**

ABS - PE - PP - PS - PC - POM - PA - PET - PMMA Methacrylate - Santoprene
PROFILE

HPB

STANDARD BARRIER

HIGH PERFORMANCE
STANDARD BARRIER

Conventional pitch screw profile
with low compression ratio suited to requirements.

Versatile for all types of material, particularly suited to tackling mastering/plasticising/mixing issues.
30% reduction in charging times compared with standard screws.

Advantages:

- increase in production
- increased mastering/plasticizing/mixing efficiency
  (transparent)
- 30-40% reduction in charging times compared with standard screws
- excellent cast quality
- reduction in pressure
- reduction in melting temperature
- rapid colour and material change

Versatile screw for all types of material:

ABS - PE - PP - PS - PC - POM - PA - PET - PMMA Methacrylate
PROFILE
HPB BARRIER MIXING
HIGH PERFORMANCE BARRIER MIXING

Barrier screw profile plus mixer with compression ratio suited to requirements.

Versatile for all types of material, particularly suited to tackling significant mastering/plasticising/mixing issues. 30-40% reduction in charging times compared with standard screws.

Advantages:
- Increase in production
- Increased plasticizing/homogenizing/mixing and mastering efficiency
- 30-40% reduction in charging times compared with standard screws
- Excellent cast quality
- Reduction in pressure
- Reduction in melting temperature
- Possibility of increasing the percentage of ground and recycled plastics considerably (20-50% up to 100%)
- Energy savings between 10-20% more compared with screws normally used
- Reduced wear and tear

Versatile screw for all types of material:
- ABS - PE - PP - PS - PC - POM - PA high % (20-50%-100%) recycled and ground material
PROFILE

HPB TOP MELT

HIGH PERFORMANCE BARRIER TOP MELT

Barrier screw profile plus mixer with low compression ratio suited to requirements.

Versatile for all types of material, particularly suited to tackling significant issues with mastering/plasticising/mixing and dispersion of liquid pigments that cause shading. 30-40% reduction in charging times compared with standard screws.

Advantages:
- dispersion of liquid pigments and shading
- increase in production
- increased plasticizing/homogenizing/mixing and mastering efficiency
- 30-40% reduction in charging times compared with standard screws
- excellent cast quality
- reduction in pressure
- reduction in melting temperature
- energy savings between 10-20% more compared with screws normally used
- reduced wear and tear

Versatile screw for all types of material:
ABS - PE - PP - PS - PC - PA
Advantages:

- 30% increase in production compared to standard screws
- Increased plasticising/homogenising/mixing and mastering efficiency
- Excellent cast quality
- Reduction in melting temperature

Versatile screw for all types of material:

ABS - PE - PP - PS - PC - POM - PA - PET - PMMA Methacrylate - Santoprene
HPE BARRIER MIXING

HIGH PERFORMANCE EXTRUSION BARRIER MIXING

Barrier screw profile plus mixer with compression ratio suited to requirements.

Versatile for all types of material, particularly suited to tackling significant issues with mastering/plasticising/mixing and dye dispersion. Particularly suited to blown film and tube.

Advantages:

- 30% increase in production compared to standard screws
- Increased plasticising/homogenising/mixing/mastering and dye dispersion efficiency
- Excellent cast quality
- Reduction in melting temperature

Versatile screw for all types of material:

ABS - HDPE - LDPE - LLDPE - PP - PS - PET
Advantages:
- 30-40% increase in production compared to standard screws
- increased plasticising/homogenising/mixing/mastering and stagnation and dye dispersion efficiency
- excellent cast quality
- reduction in melting temperature

Versatile screw for all types of material:
ABS - HDPE - LDPE - LLDPE - PP - PS - PET - PEX - PE

Barrier screw profile plus spiral Maddock mixer with compression ratio suited to requirements.

Versatile for all types of material, particularly suited to tackling significant issues with mastering/plasticising/mixing, stagnation and dye dispersion. Particularly suited to MATER-BI.
HPE RIGID PVC

HIGH PERFORMANCE

EXTRUSION RIGID PVC

Screw profile with mixer with suitable compression ratio.

Typical screw for rigid PVC featuring high-productivity and enhanced plasticisation. Particularly suited to section bar.

Advantages:
- 20-30% increase in production compared to standard screws
- Good plasticising/homogenising/mixing efficiency
- Excellent cast quality
- Reduction in melting temperature

Versatile screw for all types of material:
**PROFILE**

**HPE SOFT PVC**

**HIGH PERFORMANCE EXTRUSION BARRIER SOFT PVC**

Barrier screw profile with suitable compression ratio.

Ideal for soft PVC, particularly suited to tackling mastering/plasticisation/mixing issues. Particularly suited to pipes and section bar.

**Advantages:**
- 30% increase in production compared to standard screws
- Increased plasticising/mixing and mastering efficiency
- Excellent cast quality
- Reduction in pressure
- Reduction in melting temperature
- Rapid colour and material change

**Versatile screw for all types of material:**

Rigid PVC – Pellet – Powder – Pipes – Section bar (semi-rigid PVC – Soft PVC)
PROFILE

HPE RECYCLING

HIGH PERFORMANCE
EXTRUSION RECYCLING

Barrier screw profile with high compression ratio.

Versatile for all types of material, particularly suited to tackling significant issues with homogenisation/plasticising/mixing of heterogeneous, ground, recycled or sheet materials. Particularly suited to recycling and processing plastic waste.

Advantages:

- Increase in production
- Plasticising/homogenising/mixing efficiency
- 30% reduction in charging times compared with standard screws
- Cast quality

Versatile screw for all types of material:

ABS - PE - PP - PS - PET + GROUND - SHEET - RECYCLED
Advantages:

- versatile and universal for various types of material, without wasting time to replace screws.
- increase in production compared to standard screws
- high mastering/plasticising/mixing efficiency
- excellent cast quality
- reduction in internal pressure, plastic stress limited
- reduction in melting temperature
- rapid colour and material change

Versatile screw for all types of material:

- PE / PP / soft PVC
- Polyurethane TPE-U / TPE-E / TPE-O
- XLPE
- M1
- HFFR Halogen Free
PROFILE

HPE TOP MELT

HIGH PERFORMANCE EXTRUSION
BARRIER MIXING

Barrier screw profile, spiral Maddock mixer plus standard mixer with compression ratio suited to requirements.

Versatile for different types of material, particularly suited to tackling significant issues with mastering/plasticisation/mixing, stagnation and dye dispersion in recycled or ground pellets. Particularly suited to blown film, pipes and section bar.

Advantages:

- 30-40% increase in production compared to standard screws
- Increased efficiency of homogenisation/plasticizing/mixing and mastering and dye dispersion in recycled pellets and/or high % of ground material
- Excellent cast quality
- Reduction in melting temperature
- Masterbatch savings
- Energy savings

Versatile screw for all types of material:


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TO KEEP ABREAST OF ALL NEW PROFILES

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