



# Tools for Pelletizing Technology







USG GmbH

Quality „Made in Germany“

Owing to our profound experience, we have successfully managed to establish ourselves on the market as a manufacturer of tools and spare parts for the plastic-producing industry within a very short time.

Our own design- and manufacturing departments with modern 3-D CAD software and various CNC tooling machines, combined with the required know-how for the products, enables us to operate flexibly and in a customer-oriented way worldwide. This knowledge allows us to supply you with knives and die plates that are „custom-made“ for your applications.

The continuous review of quality during manufacturing process is a crucial part of our own production.

**Our strengths are  
„tailored products“ to your  
needs and not  
„standardized items“.**

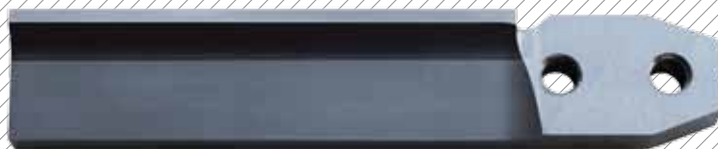
# Pelletizer Knives



Bi-metal Knives  
for Coperion UG 300 (PP)



Bi-metal Sabre Knife  
for Coperion Pelletizer (PP)



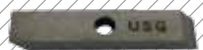
Bi-metal Knife  
for Coperion UG 1000 (HDPE)



Bi-metal Knife  
for Coperion UG 1250 (HDPE)



Solid TiC Knife  
for Nordson BKG Pelletizer



Flat Knives one row/two row  
for Nordson BKG and Gala Pelletizers

Titanium carbide has proved to be excellent as material for pelletizing knives. Our bi-metal knives combine the advantages of this high wear resistant material with cost-oriented manufacture. We solder exclusively in vacuum, which ensures perfect stability of the soldered TiC insert.

We manufacture the knives with our know-how and according to your requirements from:

- Titanium Carbide Nikro 128 or Nikro 143
- Bi-metal, Titanium Carbide insert in a high strength stainless steel body
- PM Materials
- different hardenable tool steels, like D2, 440B, 440C a.s.o.



Steel Knife  
for Kobe pelletizer (HDPE)

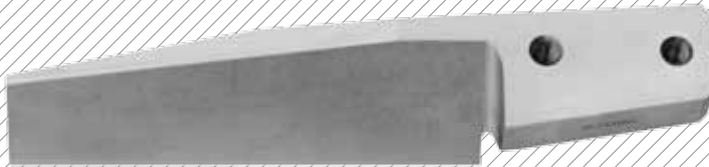


Bi-metal Knife  
for Kobe UP 850 (HDPE)

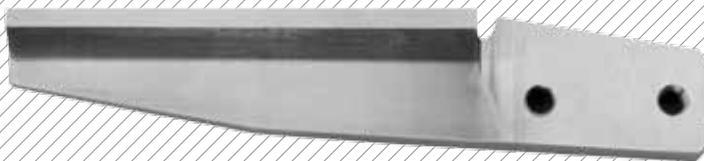
Bi-metal Knife  
for JSW Pelletizer (HDPE)



Bi-metal Knife  
for JSW Pelletizer (PP)



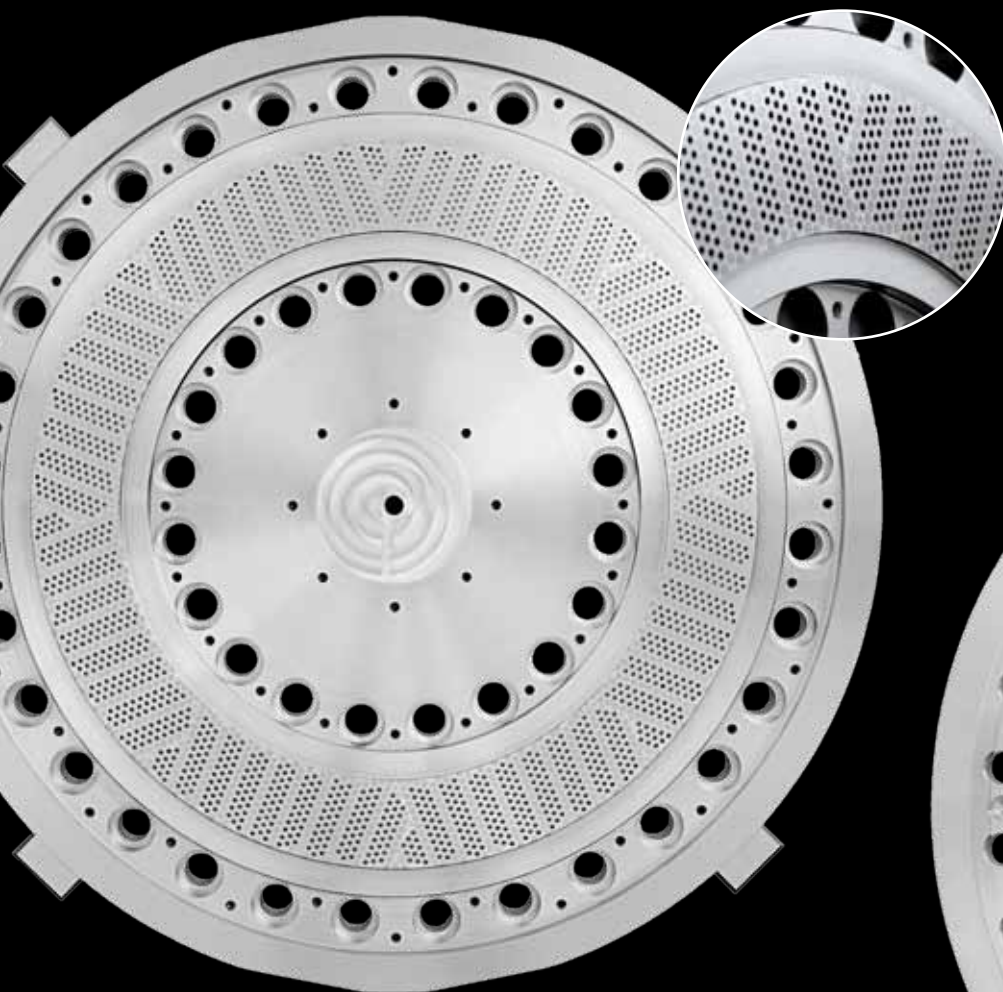
Bi-metal Knife  
for Berstorff UWG 80 (LDPE)



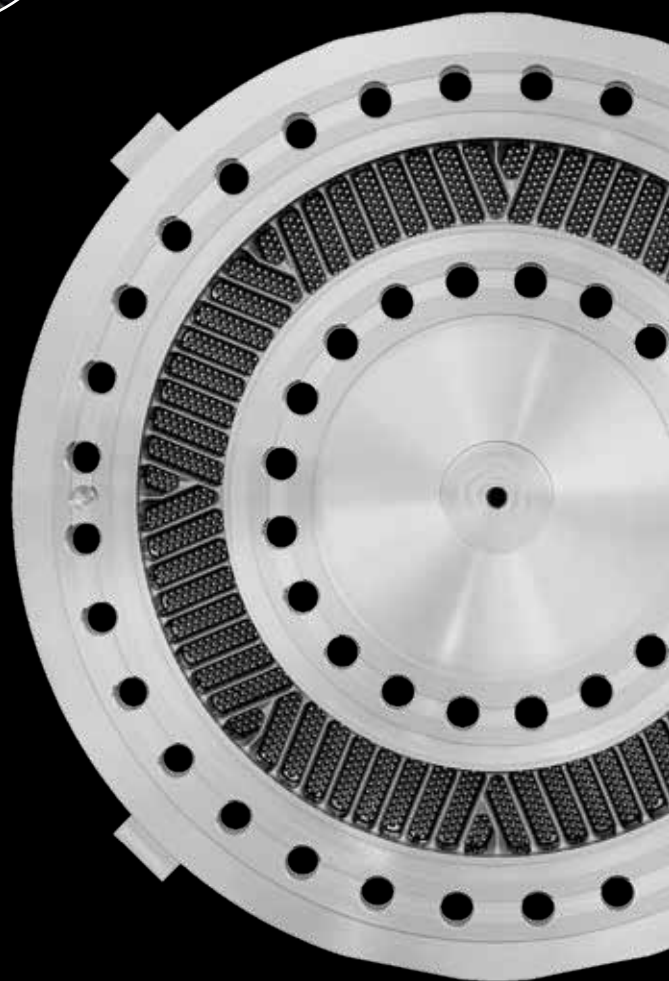
Bi-metal Sabre Knife  
for Farrel C 800 (PP)

Bi-metal Knife  
for Farrel C 1000 (HDPE)





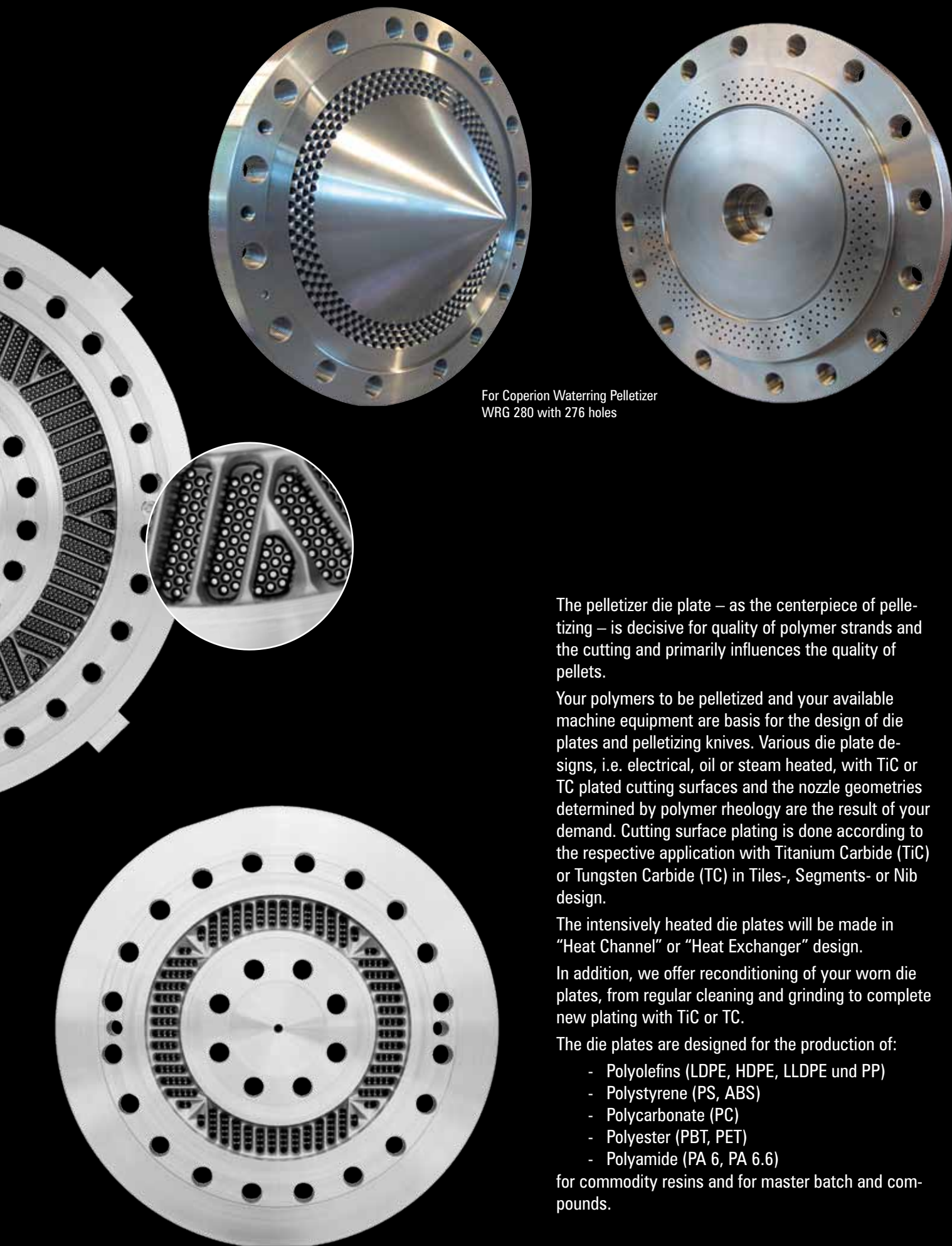
For Coperion underwater Pelletizer  
UG 500 with 1960 holes  
Heat Channel design, steam heated



For Coperion underwater Pelletizer  
UG 300 with 376 and 228 holes  
Heat Channel design, oil heated



# Pelletizer Die Plates



For Coperion Waterring Pelletizer  
WRG 280 with 276 holes

The pelletizer die plate – as the centerpiece of pelletizing – is decisive for quality of polymer strands and the cutting and primarily influences the quality of pellets.

Your polymers to be pelletized and your available machine equipment are basis for the design of die plates and pelletizing knives. Various die plate designs, i.e. electrical, oil or steam heated, with TiC or TC plated cutting surfaces and the nozzle geometries determined by polymer rheology are the result of your demand. Cutting surface plating is done according to the respective application with Titanium Carbide (TiC) or Tungsten Carbide (TC) in Tiles-, Segments- or Nib design.

The intensively heated die plates will be made in “Heat Channel” or “Heat Exchanger” design.

In addition, we offer reconditioning of your worn die plates, from regular cleaning and grinding to complete new plating with TiC or TC.

The die plates are designed for the production of:

- Polyolefins (LDPE, HDPE, LLDPE und PP)
- Polystyrene (PS, ABS)
- Polycarbonate (PC)
- Polyester (PBT, PET)
- Polyamide (PA 6, PA 6.6)

for commodity resins and for master batch and compounds.

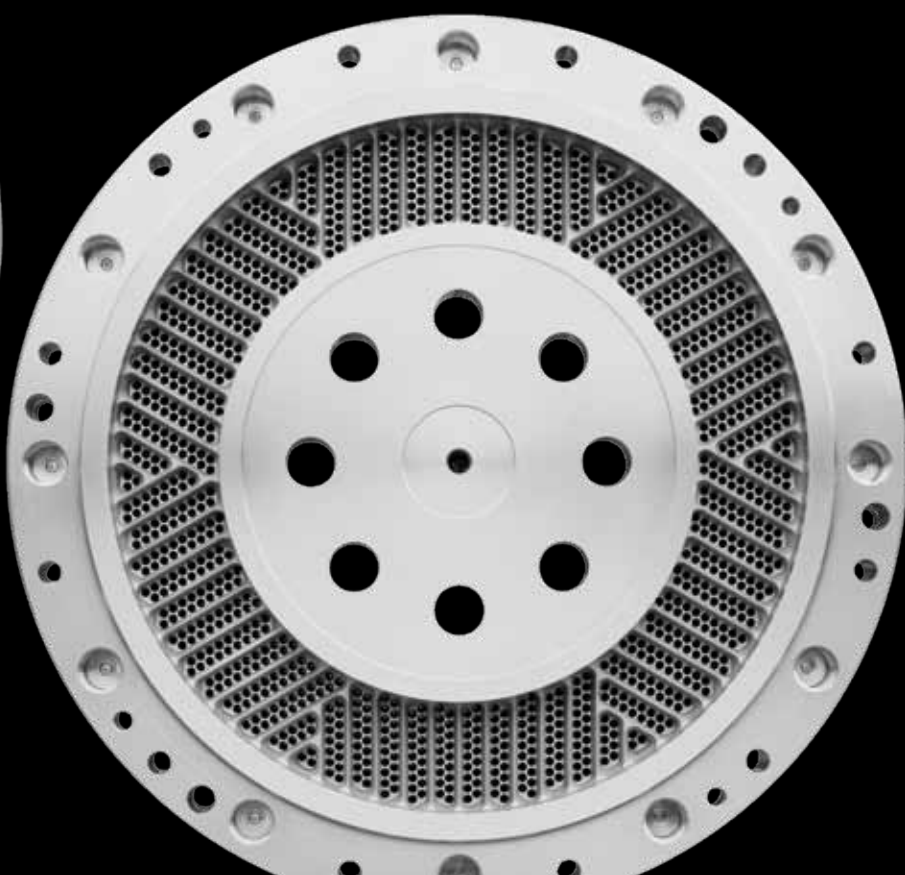
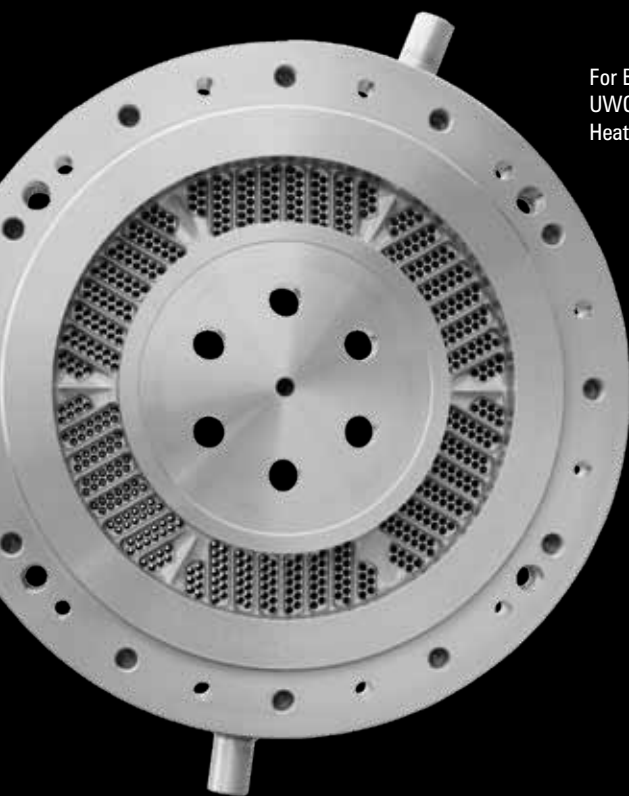
# Pelletizer Die Plates



For Berstorff underwater Pelletizer  
UWG 30 with 528 holes  
Heat Channel design, steam heated



For Berstorff underwater Pelletizer  
UWG 50 with 1160 holes  
Heat Channel design, steam heated





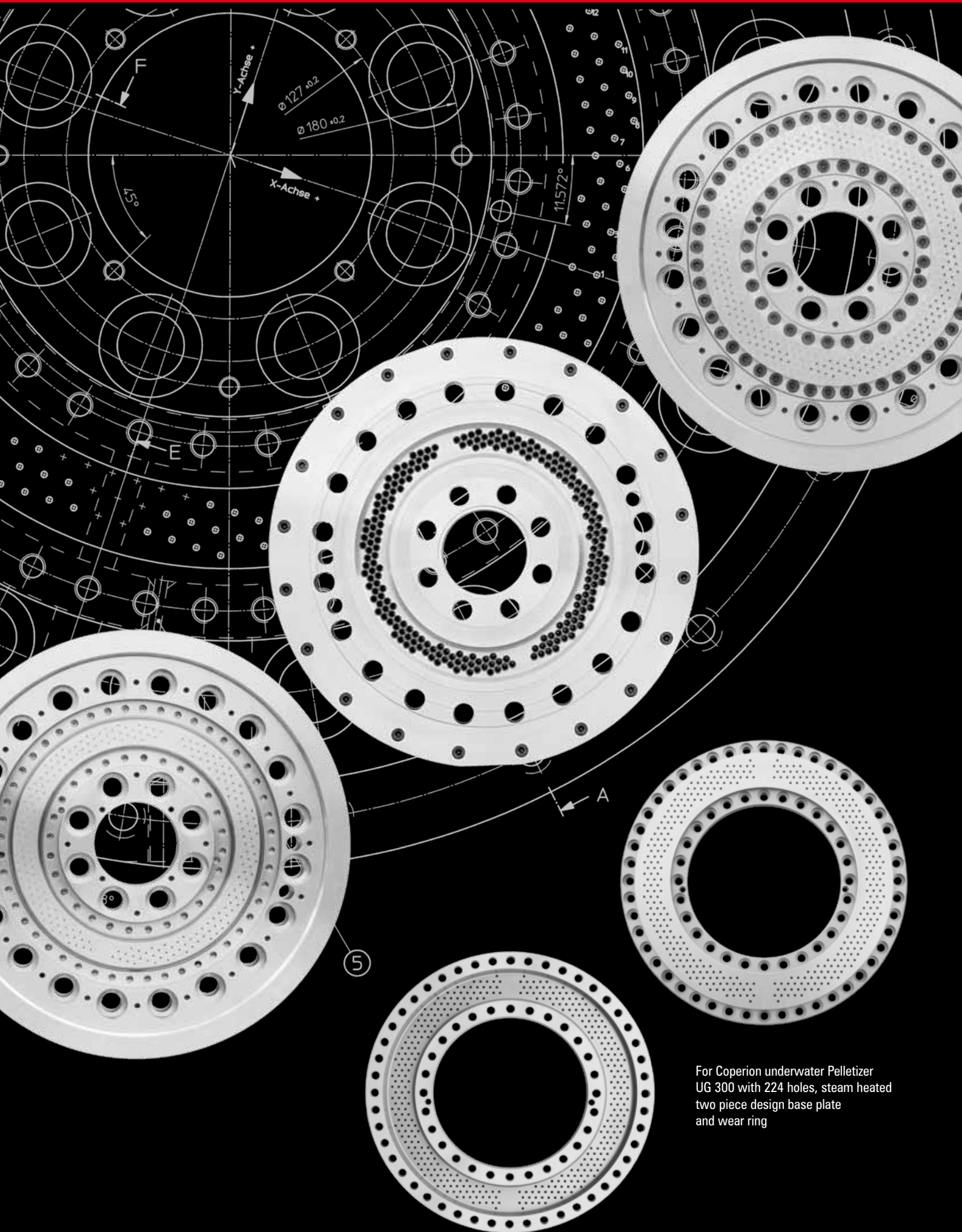
For Farrel underwater Pelletizer  
S. 1200 with 532 holes  
Heat Channel design, steam heated



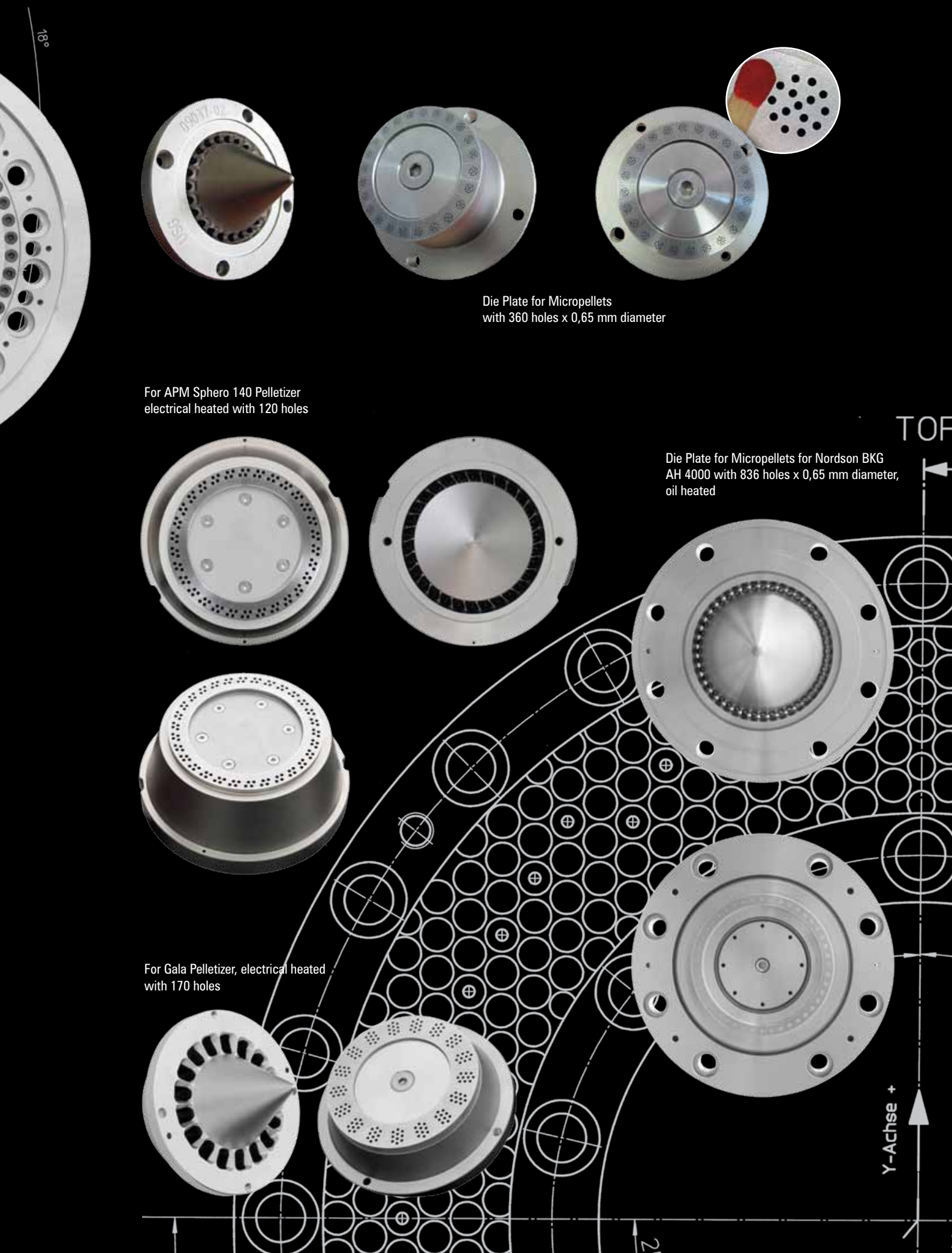
Steam heated Die Plate, Heat Channel design  
for LDPE with 696 holes



# Pelletizer Die Plates



For Coperion underwater Pelletizer  
UG 300 with 224 holes, steam heated  
two piece design base plate  
and wear ring



For APM Sphero 140 Pelletizer  
electrical heated with 120 holes

Die Plate for Micropellets  
with 360 holes x 0,65 mm diameter

Die Plate for Micropellets for Nordson BKG  
AH 4000 with 836 holes x 0,65 mm diameter,  
oil heated

For Gala Pelletizer, electrical heated  
with 170 holes

# Reconditioning of Die Plates



Worn and damaged Gala Die Plate before reconditioning



Die Plate after replating with TiC segments

Worn AH 4000 Die Plate before reconditioning



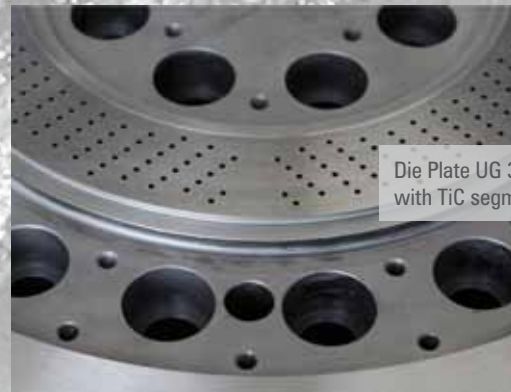
AH 4000 Die Plate after replating with tungsten carbide tiles



worn and damaged Die Plate UG 300 before reconditioning



Die Plate UG 300 after replating with TiC segments



Worn Gala Die Plate before reconditioning

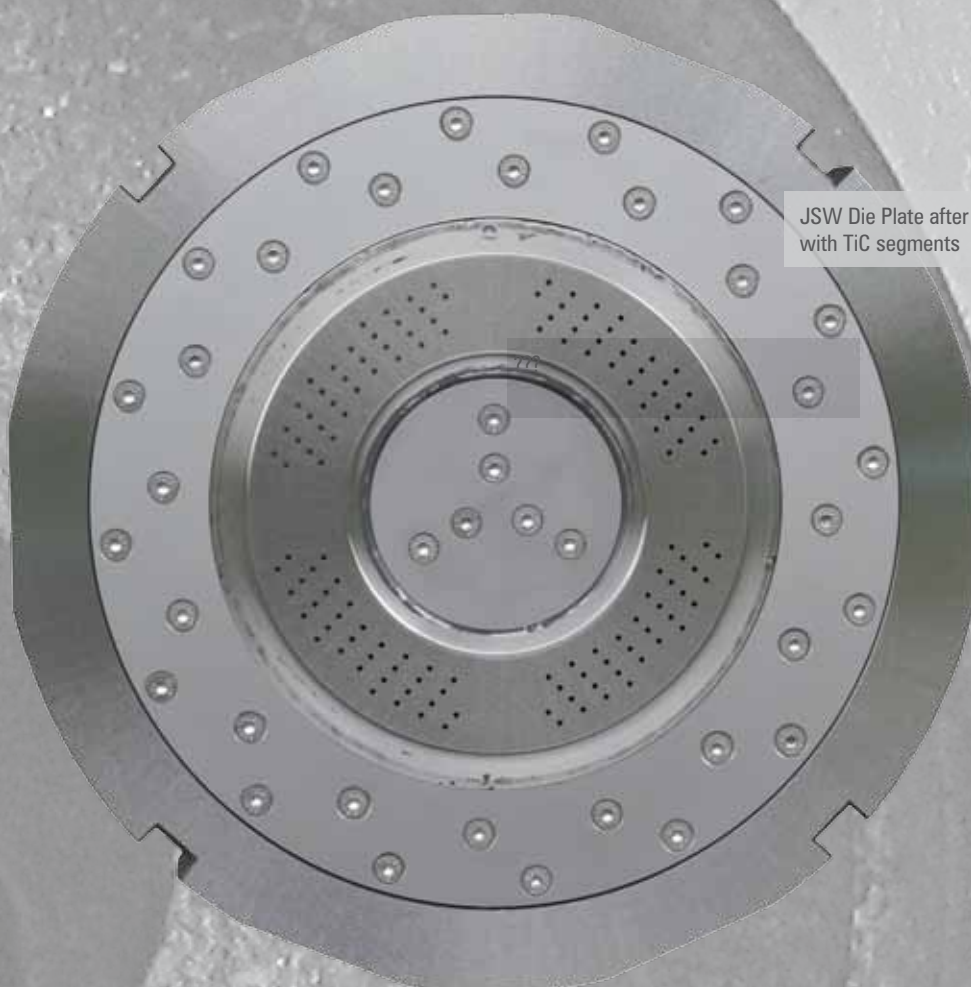


Die Plate after replating with TiC segments





Worn and soiled JSW Die Plate  
before reconditioning



JSW Die Plate after replating  
with TiC segments

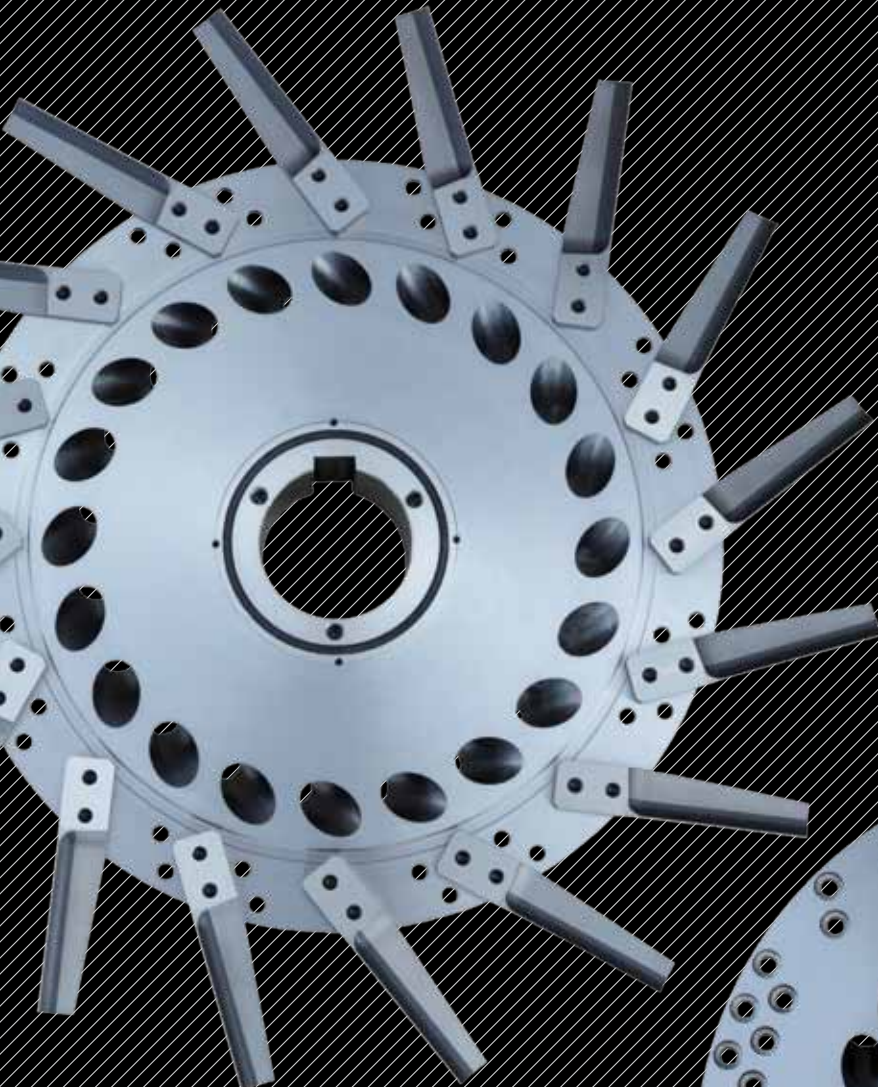
# Knife holder



Knife Holder UG 300  
for 4, 6, 8 and 12 knives



Knife Holder UG 200  
for 3, 6 and 9 knives



Knife Holder UG 500  
for 12, 16 and 24 knives

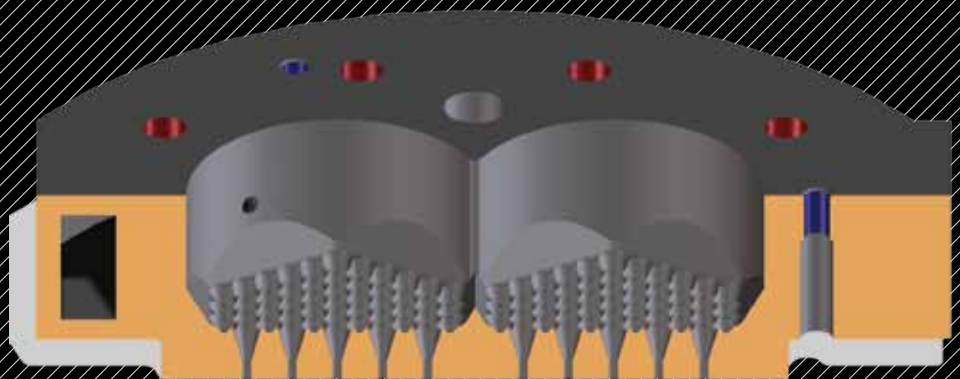




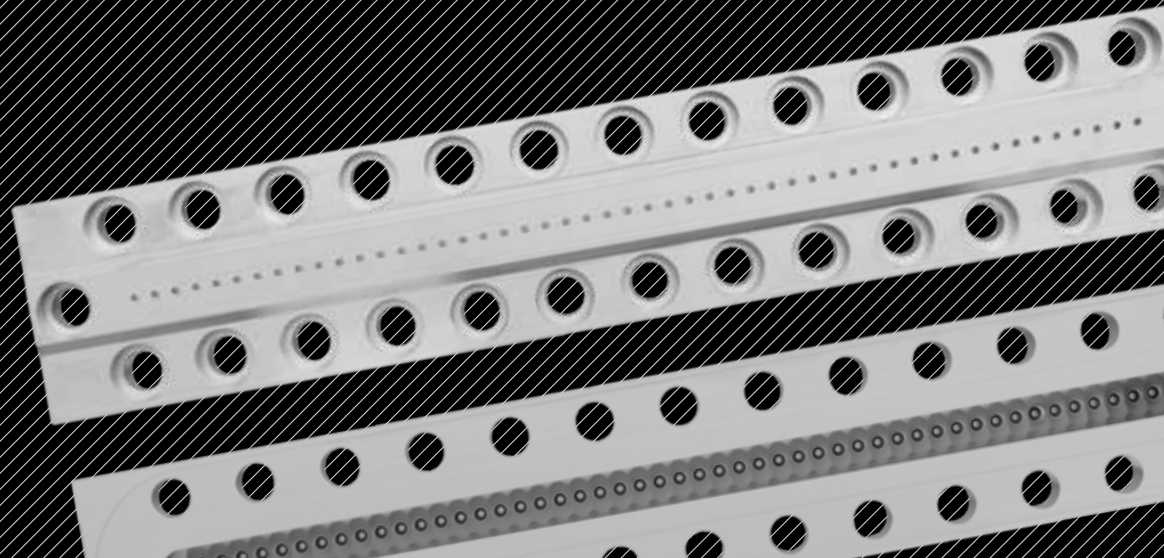
Water Chamber for  
Gala pelletizer



Rotor Cutter for Scheer SGS 200  
Strand Pelletizer



Die Plate oil heated for  
Coperion Double Screw Extruder



Flat Die  
for Scheer Strand Pelletizer



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## Our product range includes:

- Pellet Plates for Underwater- and Waterring Pelletizers
- Knives in solid TiC (Nikro 128 or Nikro 143), Bi-metal or tool steel design
- Knife Holders in rigid or flexible design
- Rotor Cutters for Strand Pelletizers made of tool steel, PM materials or carbide-tipped
- Die Heads for Strand Pelletizers
- Hole Bushes
- Strainer Plates
- Grinding Service for Pellet Plates, Knives and Rotor Cutters
- Replating of Pellet Plates

for pelletizing systems of following manufacturers:

- APM (Automatik)
- Berstorff
- Coperion Werner & Pfleiderer
- Econ
- Farrel
- Gala
- JSW Japan Steel Works
- Kobe
- Nordson BKG
- Scheer

... and others

## Contact

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