Reifenhäuser
EXTRUSION

Available sizes

REIFENHÄUSER slot die-heads are available in nominal widths from 300 to 5500mm.

Materials used

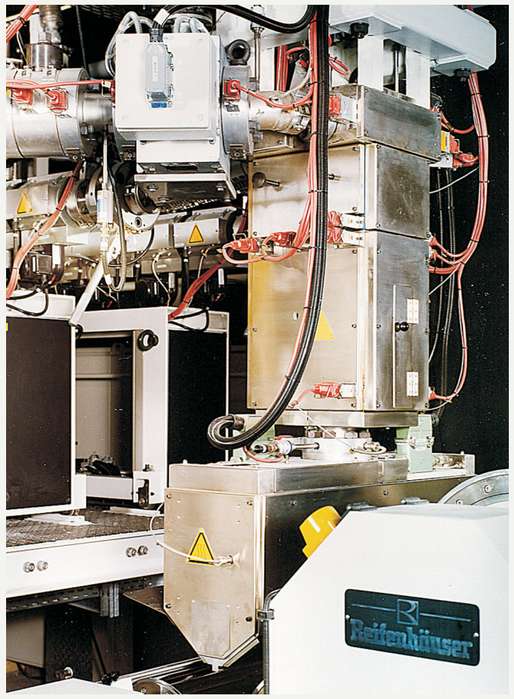
All standard slot die-heads are made of forged low-alloy high-grade steel with strengths of up to 1100 N/mm². In particular cases, corrosion resistant tool steel with a high content of chromium may be used.

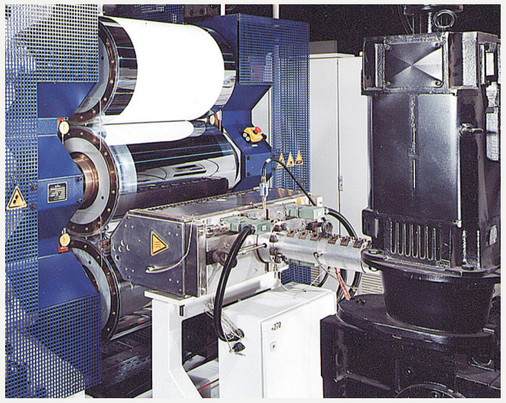
These materials with optimised purity and structure according to the REIFENHÄUSER specification offer the best prerequisites for excellent polishing and coating results of the flow channels.

Flow channels

All slot die-heads are supplied as standard with symmetrically arranged flow channels with a geometry suitable for connection to and feeding of a coextrusion system.

The rheological design of the complete die-head flow geometry depends on the customer requirement and is made specific to the order.

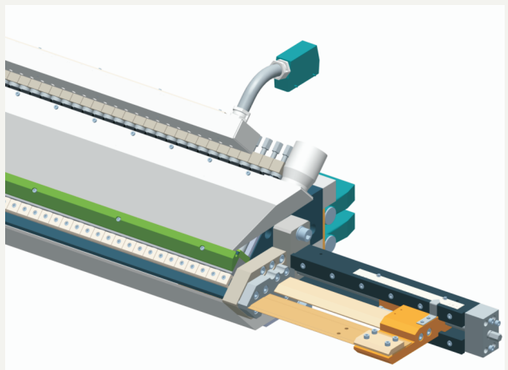




Melt contacting surfaces are usually polished and hard chrome plated. Special material grades may be used for particular applications. The hardchrome counteracts deposits and has a positive influence on the service life (cleaning cycle) of the die-head and on the product quality.

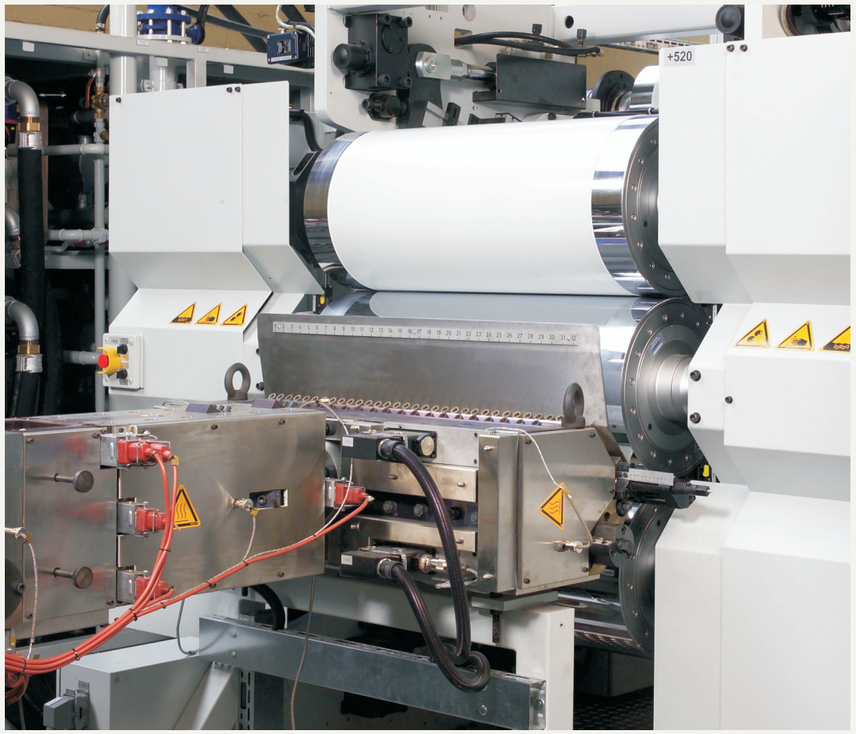
Electrical system

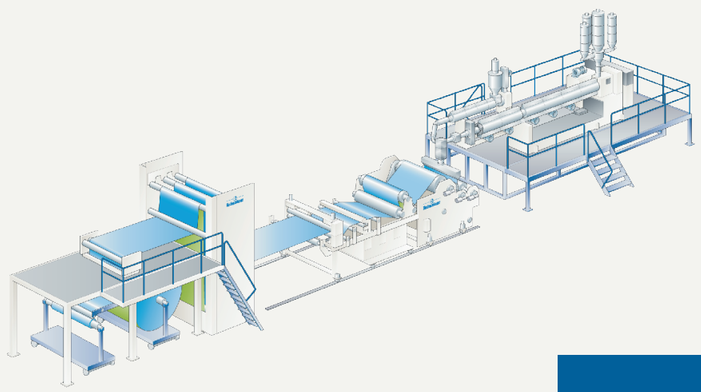
Heating is effected by means of high-performance cartridge heaters combined to heating zones and wired to a coded multi-pin central plug. The temperature probes (Fe/Cu/Ni) for all die-heads are installed and wired to a central plug as well.



Slot die-head TZ 06

Slot die-heads for thermoforming sheet extrusion





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REIFENHÄUSER GREEN IQ

Slot die-heads for thermoforming sheet extrusion

Reifenhäuser EXTRUSION

Slot die-heads for extruded products of high quality

REIFENHÄUSER can draw on more than 40 years of experience in the design and manufacture of slot die-heads. The close relationship between design, manufacture and process technology combined with the expertise gained in trials and the commissioning of lines have resulted in a continuous further development and optimization up to the last detail.

Typically, **slot die-heads for thermoforming sheet** extrusion are provided with a flexlip. Depending on the design, the basic adjustment of the die gap can be made, if required, by displacing the lower die lip. For some die-head types the melt flow can be adjusted by means of a restrictor bar.

The flexible die-head lip enables minimal thickness deviations to be readjusted during production. Readjustment of these film tolerances is effected either manually or automatically by a number of adjusting elements arranged across the die gap.

REIFENHÄUSER supplies:

- **thermobolt systems** operating with active cooling allowing for optimized speed

For the production of thermoforming sheets, highest requirements are placed on the quality of the **die lips**. In the manufacturing process, the lips can be provided with a separate coating layer and special finish, either as a standard or upon customer request.

In this way, the **die lips** are resistant against damage during setting and cleaning works and ensure good film quality over a long period of time.

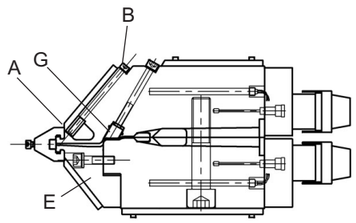
External slot die-head deckling

The holding clamps that press the steplessly adjustable sealing strip onto the lip front are mounted when the line is out of operation. A deckling system that can be adjusted during production by means of a sealing wedge system arranged at the front end can be used as an alternative.

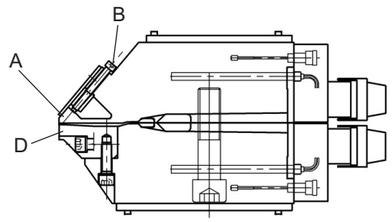
Internal slot die-head deckling

For internal deckling, i.e. adjusting of the slot width, the sword-type adjusting elements can be pushed deep into the flow channel and lip so that the melt is removed out of the channel areas that are not required.

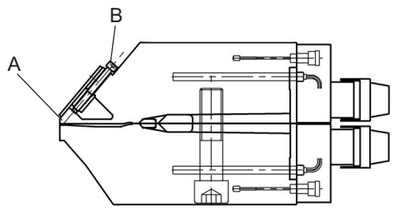
Slot die-head TZ 01



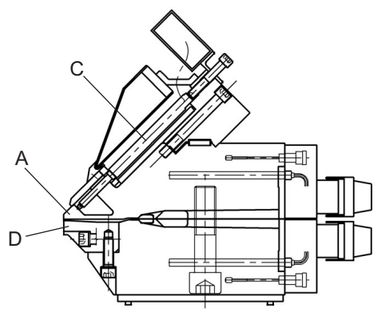
Slot die-head TZ 02



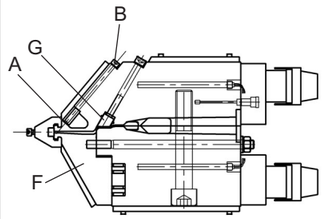
Slot die-head TZ 03



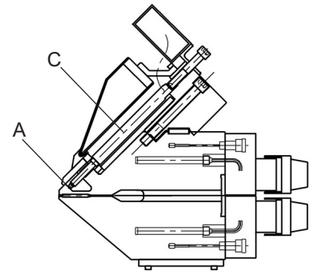
Slot die-head TZ 04



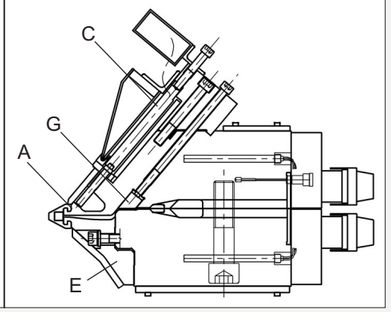
Slot die-head TZ 05



Slot die-head TZ 06



Slot die-head TZ 07



Module	Slot die-head type BSD	TZ 01	TZ 02	TZ 03	TZ 04	TZ 05	TZ 07	TZ 06
	Standard widths (in 50 mm steps)	700 - 2000 mm						
	Flow channel design	Coat hanger						T-channel
	Die gap	0,5-3,7	0,5-2,5	0,5-2,5	0,5-2,5	0,5-3,7	0,5-3,7	0,5-2,0
A	Flex lip							
B	Manually adjustable	X	X	X	X	X	X	X
C	Automatic thermobolt	--	--	--	X	--	X	X
B	Flex lip adjusting range	1 mm	2 mm	2 mm	2 mm	1 mm	1 mm	2 mm*
D	Lower lip exchangeable (gap range mm)	X	O (2-4)	--	O (2-4)	--		--
E	Lower lip displaceable	X	--	--	--	--	X	--
F	Lower lip displaceable in production	--	--	--	--	X	--	--
	Separate lip heating	O	O	O	O	O	O	O
	Hardened lips (58 - 60 HRC)	X	O	O	O	X	X	X
G	Restrictor bar	X	--	--	--	X	X	--
	Flow channel surfaces	polished and hard-chrome plated						
	Deckling (external)							
	Adjustable during downtime max.2x300 mm	O	O	O	O	O	O	--
	Adjustable during operation max.2x300 mm	O	O	O	O	O	O	--
	Deckling (internal)							
	Adjustable during operation max.2x300 mm	--	--	--	--	--	--	X
	Insulation	X	X	--	X	X	X	X

X = standard design
-- = not available
O = option
* = depending on width adjustment