

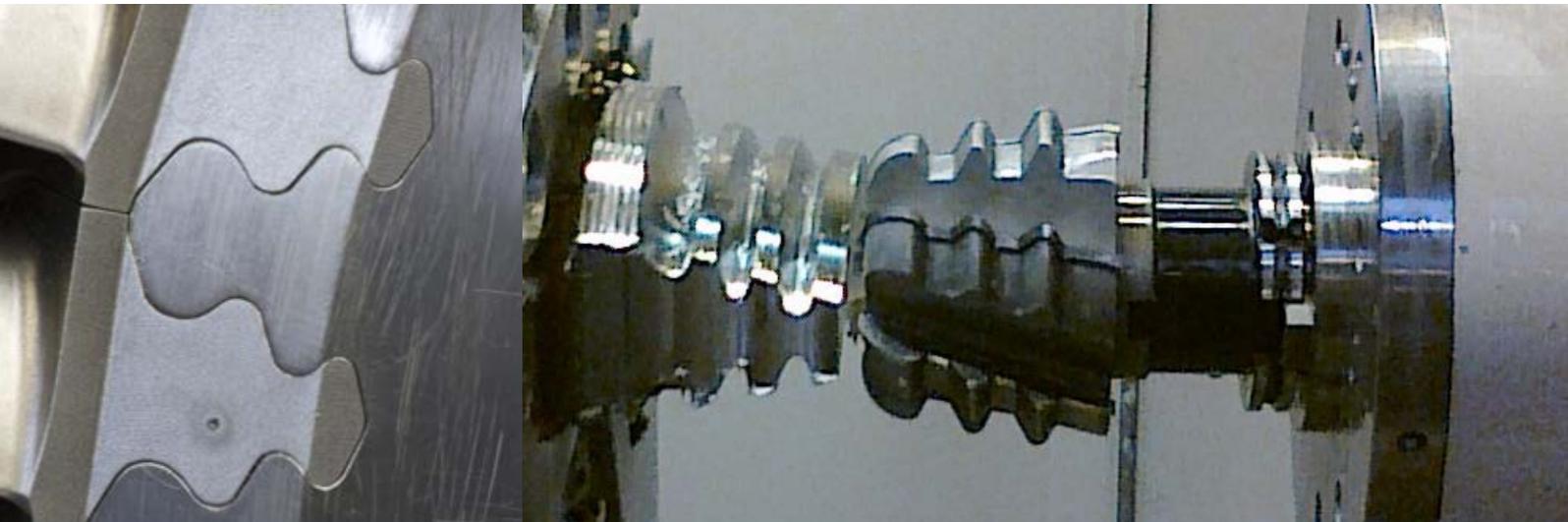
THE NEW VALUE FRONTIER



POWER GENERATION

Turbine  
machining

# Turbine machining



Intelligent tooling solutions – cutting your costs

Process



**KEEPS YOU  
AHEAD**



**Corporate Motto:** "Respect the Divine and Love People"

敬天愛人

Preserve the spirit to work fairly and honorably,  
respecting people, our work, our company  
and our global community.

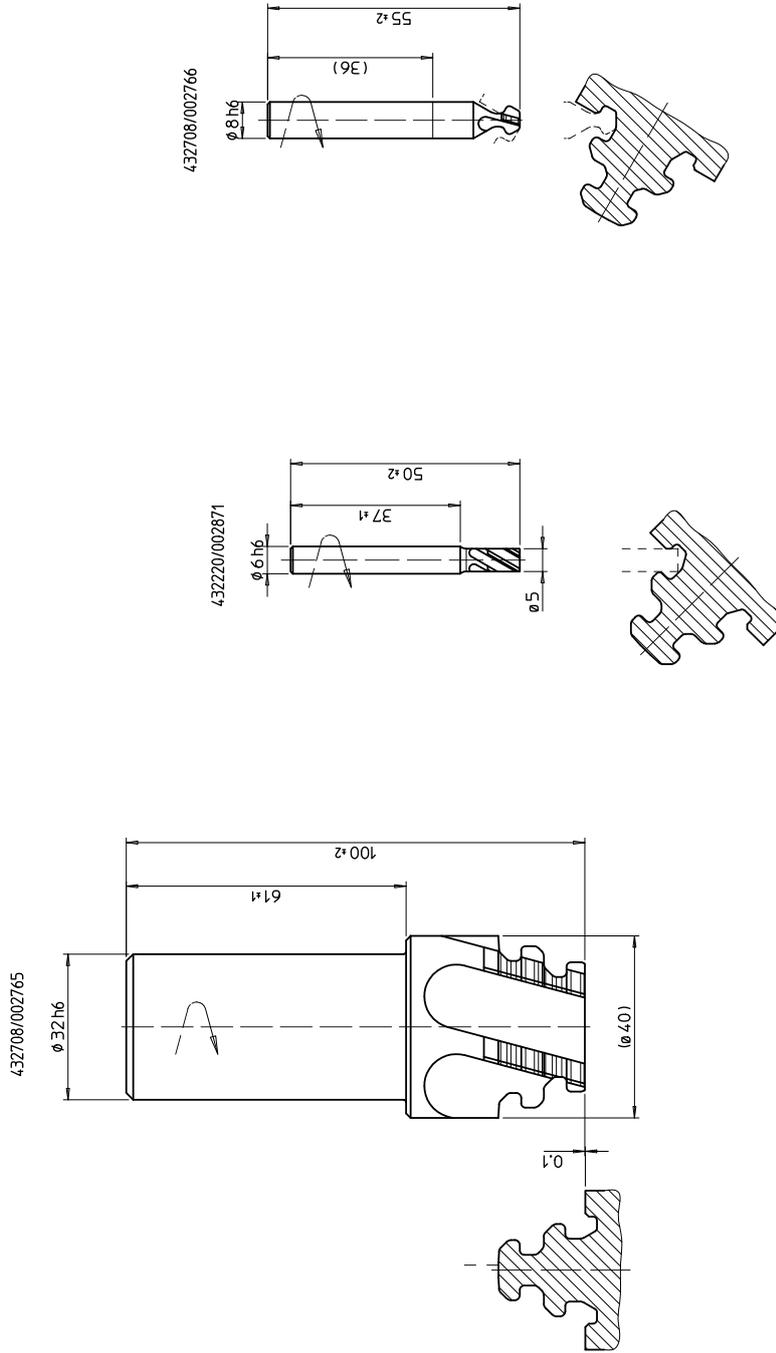
THE NEW VALUE FRONTIER



"The New Value Frontier" reflects Kyocera's commitment to continuously creating new value at the cutting edge of technology. The global Kyocera Group develops unique technologies and applies its vision to create valuable products that the markets continually seek.

CONCEPT -DRAWING

MILLING STRATEGY



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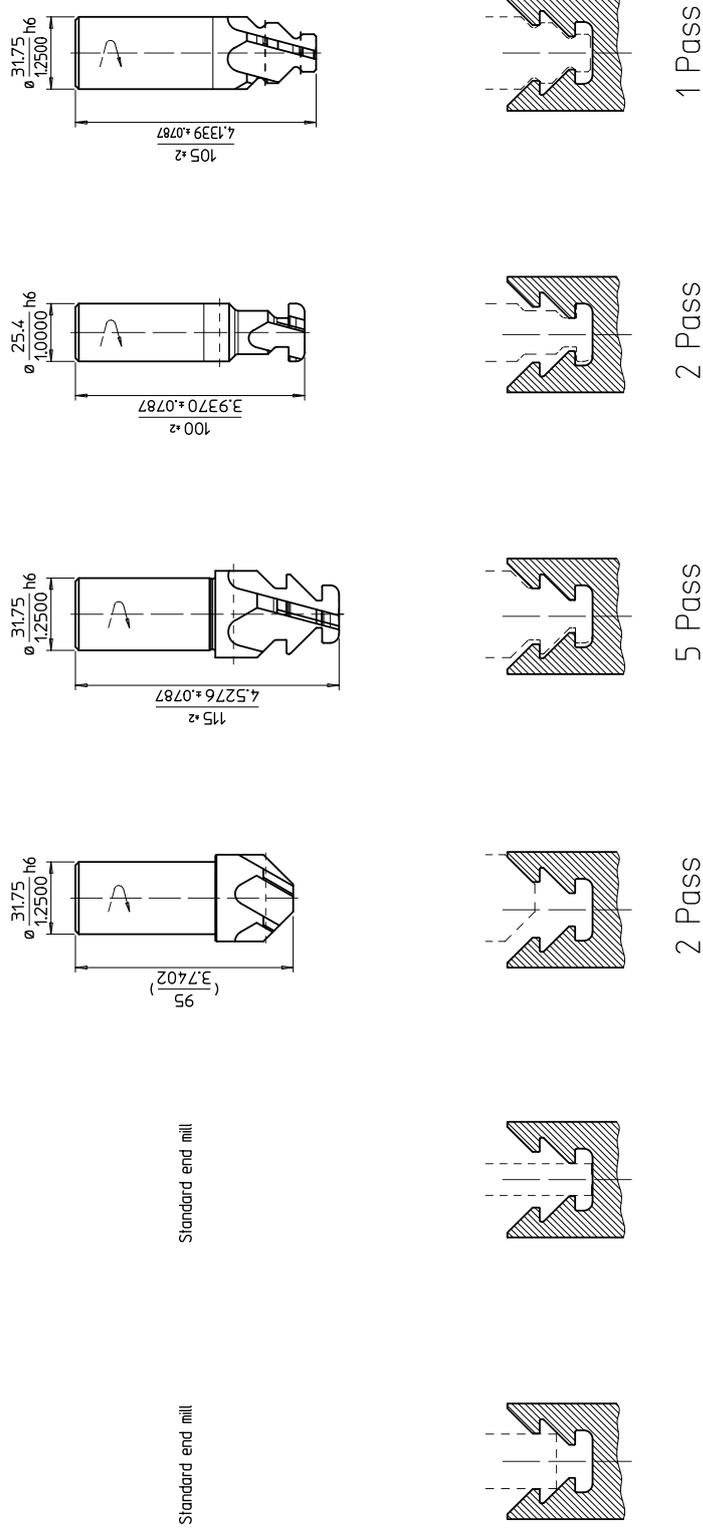
Customer ref.: GROUP SALES - POWER GENERATION	Part code: 43000	Tool desc.: Milling Strategy	Work piece: -	Escalator: HAN 26.02.15	Last revision:
Customer ref.: Allan Staunstrup Petersen	Customer No: 990990/006968 PRS	Coating: -	Weight (kg): -	Work piece: Cutting edge HW	
Drawing no.: 990990/006968 PRS	Profile No: 1	Template no.: -	Scale: 1:1	Body: -	

**KYOCERA**  
KYOCERA UNIMERCO Tooling A/S  
Tlf +45 97 14 11 - Fax +45 97 14 86



# CONCEPT-DRAWING

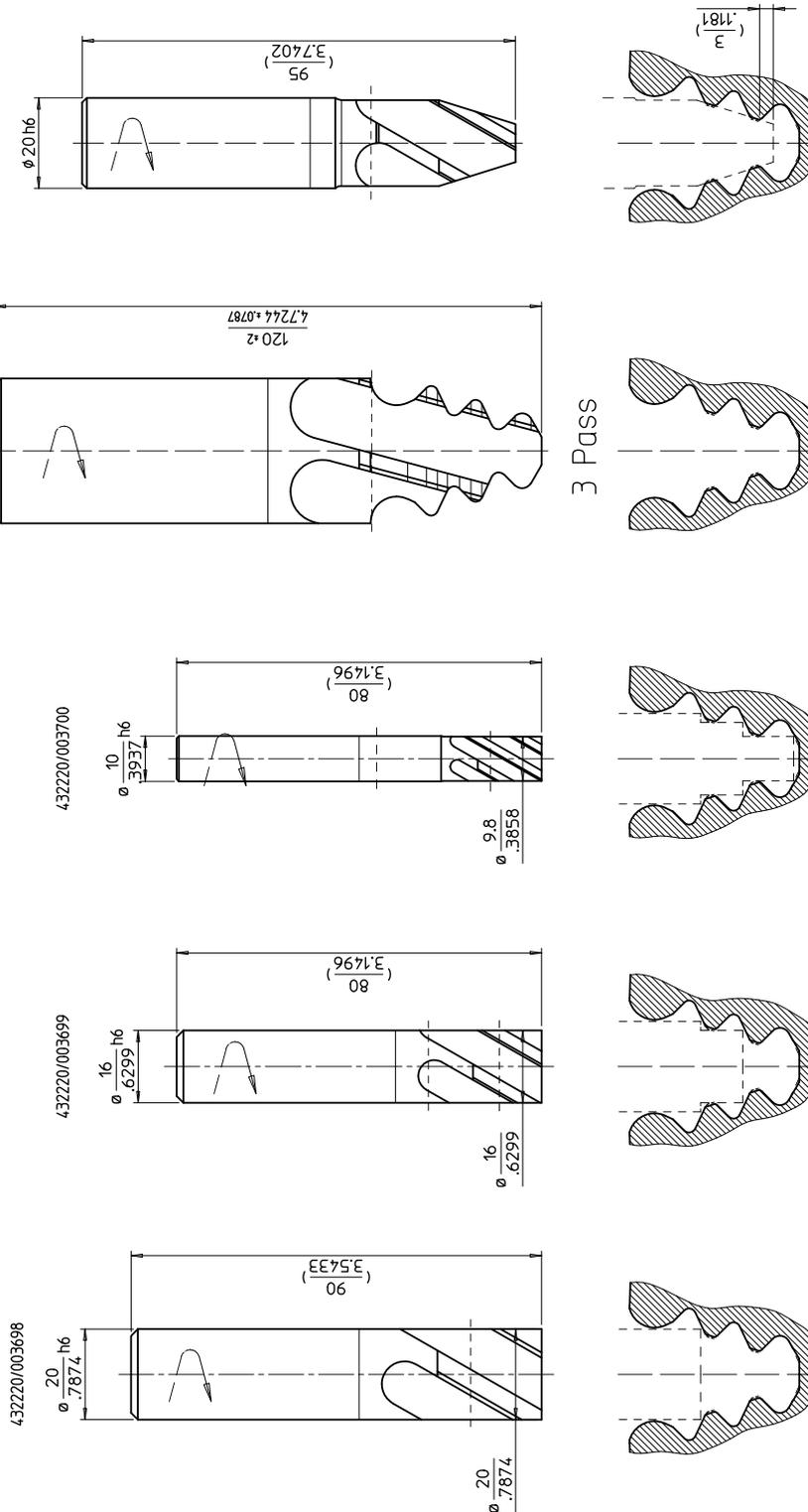
## MILLING STRATEGY



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<p>GROUP SALES - POWER GENERATION</p>		<p>Product: HAN 26.02.15</p>	
<p>Customer ref: 990990/006970</p>		<p>Work piece: -</p>	
<p>Customer No: 43000</p>		<p>Cutting edge: HW</p>	
<p>UNIMERCO Ref: Allan Staunstrup Petersen</p>		<p>Body: -</p>	
<p>Drawing no: 990990/006970</p>		<p>Scale: 1:1</p>	
<p>Profile No: 1</p>		<p>Template no: -</p>	
<p>PRG 1</p>		<p>Ed: 1</p>	
<p>Logo: KYOCERA UNIMERCO</p>		<p>Logo: KYOCERA UNIMERCO</p>	
<p>Logo: KYOCERA UNIMERCO</p>		<p>Logo: KYOCERA UNIMERCO</p>	

# CONCEPT-DRAWING

## MILLING STRATEGY

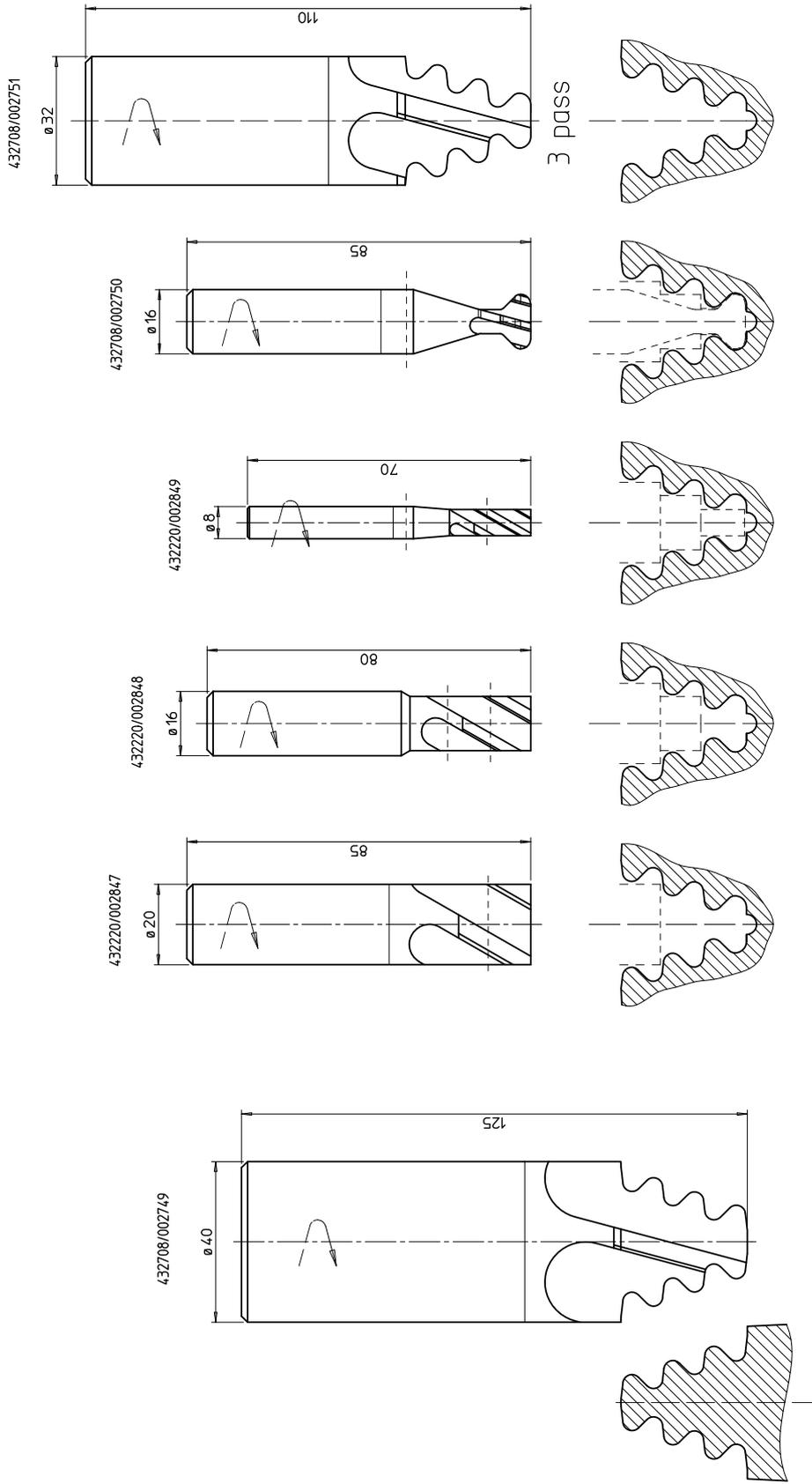


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Customer ref:		Part code:	
GROUP SALES - POWER GENERATION		43000	
Customer ref:		Profile No:	
Allan Stounstrup Petersen		PRS 1 1	
Drawing no:		Edition:	
990990/006971		PRS 1 1	
Type of tool:		Last revised:	
Profile cutter		HAN 26.02.15	
Tool dia.:		Work piece:	
Milling Strategy		-	
Coating:		Cutting edge:	
-		HW	
Weight: kg:		Body:	
-		-	
HRC:		Scale:	
-		1:1	
Template no.:		KYOCERA	
-		KYOCERA UNIMERCO Tooling A/S	
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CONCEPT-DRAWING

MILLING STRATEGY



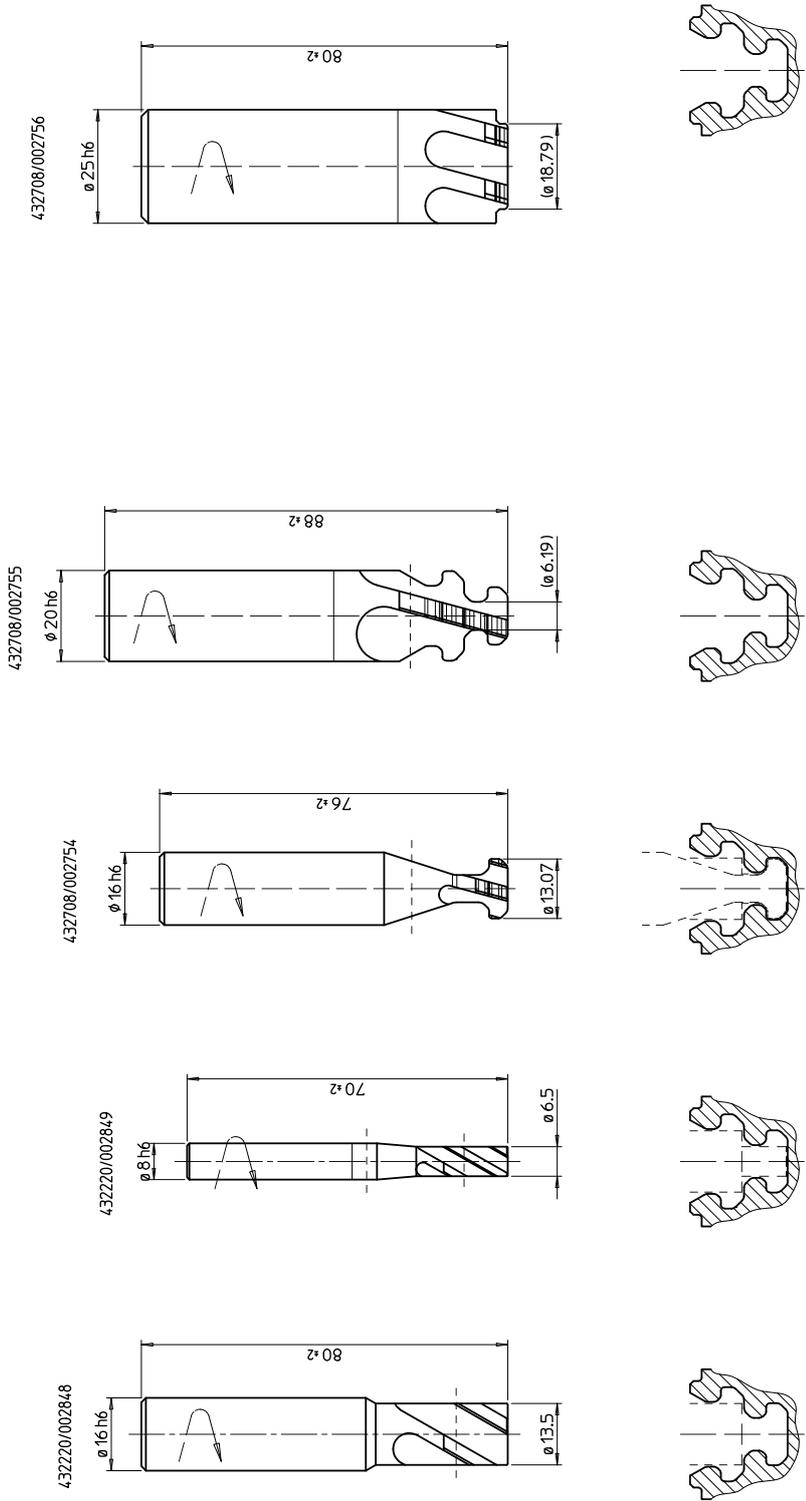
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Tolerances, surfaces and geometries not indicated are in acc. with the KYOCERA UNIMERCO Norm.

Customer: GROUP SALES - POWER GENERATION	Customer No: 43000	Part code:	Work piece:
Customer ref.: Allan Stounstrup Petersen	UNIMERCO Ref.: 990590/006972	UNIMERCO Ref.: PRS 1 1	Cutting edge: HW
Drawing no.: 990590/006972	Ed.: PRS 1 1	Profile No: 1	Body: -
Type of tool: Profile cutter	Tool dim.: Milling Strategy	Weight: kg	Pa.
	Coating: -	HRc:	Scale: 1:1
	Template no.:		
No.: HAN 26.02.15	Constructor: KYOCERA UNIMERCO	Last revised:	
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# CONCEPT-DRAWING

## MILLING STRATEGY

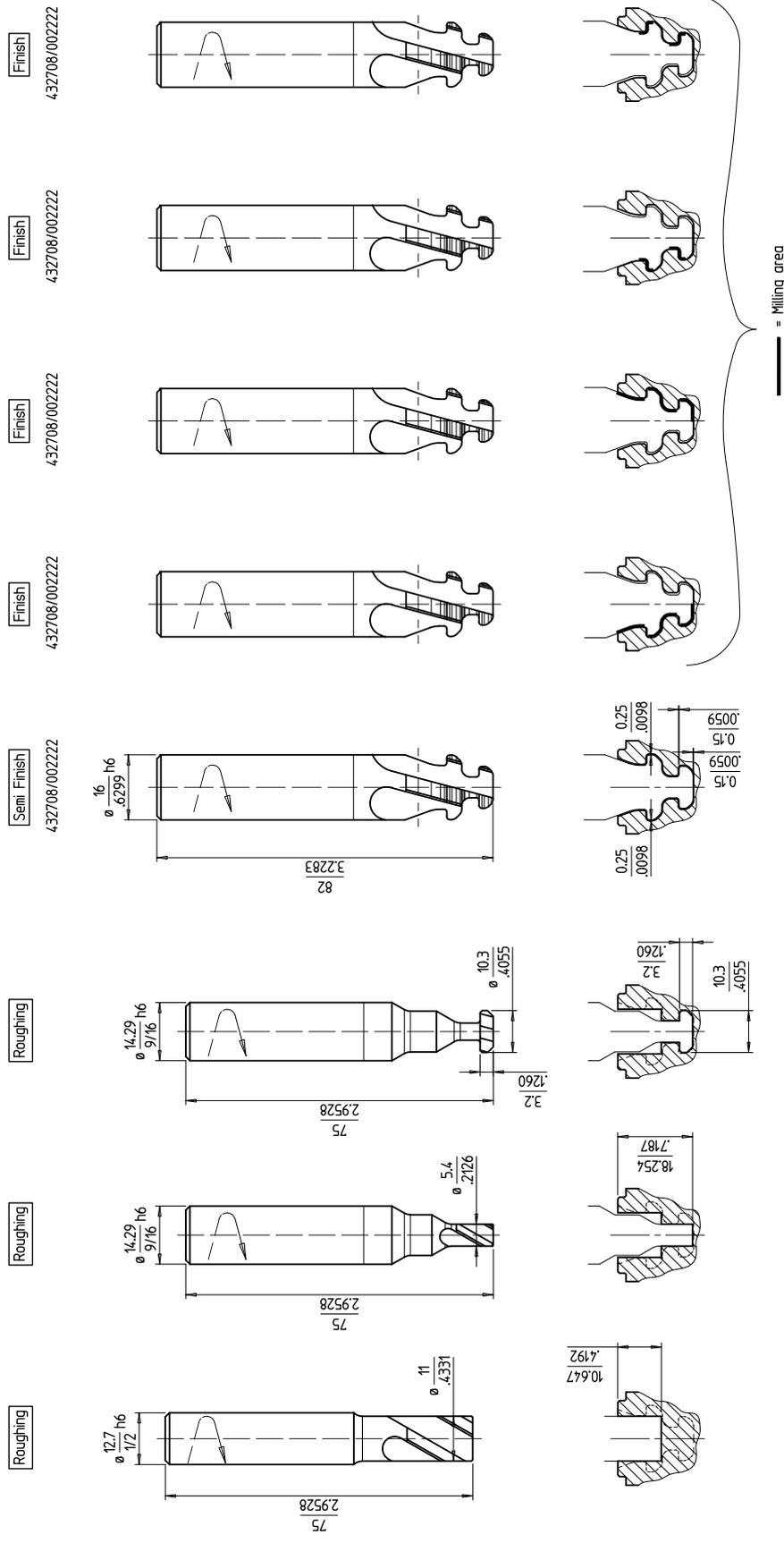


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GROUP SALES - POWER GENERATION	Type of tool: Profile cutter	Material: HAN 26.02.15	Unit revised:
Customer ref.: 990990/006973	Tool dia.: Milling Strategy	Work piece: -	
Customer No.: 43000	Weight (kg): Pa.	Cutting edge: HW	
UNIMERCO ref.: Allan Siounstrup Petersen	Scale: 1:1	Body: -	
Drawing no.: 990990/006973	Profile no.: PPS 1 1		
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# CONCEPT-DRAWING

## MILLING STRATEGY



[Roughing] [Roughing] [Roughing] [Semi Finish] [Finish] [Finish] [Finish]

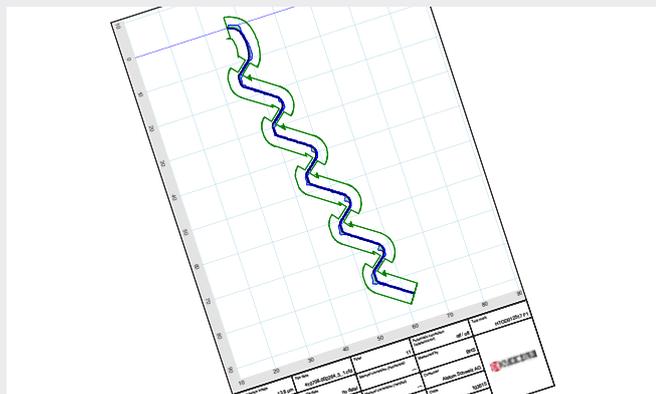
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Customer: <b>GROUP SALES - POWER GENERATION</b>	Part code:	Tool type: <b>Profile cutter</b>	Material: <b>HAN 26.02.15</b>	Last revised:
Customer ref.: <b>Allan Staunstrup Petersen</b>	Customer No: <b>43000</b>	Tool desc: <b>Milling Strategy</b>	Work piece:	
Drawing no.: <b>990990/006974</b>	Profile No: <b>PRS 1 1</b>	Coatings:	Cutting edge: <b>HW</b>	
		Weight (kg):	Body:	
		HRc:	Scale: <b>1:1</b>	
		Template no.:		
<b>KYOCERA</b>		KYOCERA UNIMERCO Tooling A/S Tlf +45 97 14 11 - Fax +45 97 14 86		

# Total quality – YOUR GUARANTEE FOR CONTINUOUS PERFORMANCE

Specification system and service concept



## Measuring report

Turbine blade root forms require extremely accurate machining. In order to add additional value to your manufacturing process, each single profile tool is supplied with a measuring report documenting compliance with the specific profile tolerance. This documentation is also produced each time we return your cutter after RE•NEW®.



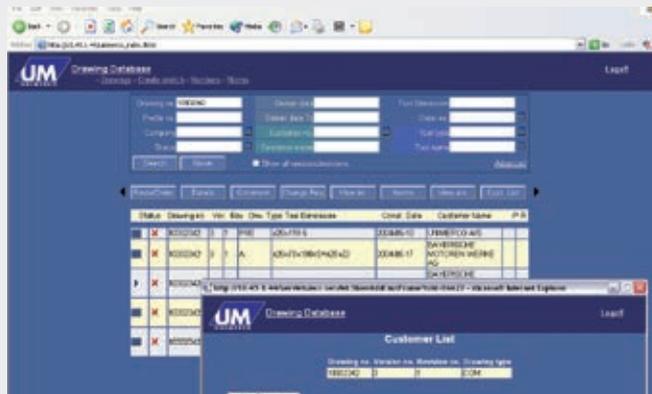
## Packaging solutions

Profile cutters for turbine blade root forms are high-performance tools manufactured to extremely tight tolerances. In order to retain this  $\mu\text{m}$  accuracy throughout the tool life time, each cutter is safely stored in a dedicated box. This gives maximum protection to the tool during transportation and storage.



## RE•NEW® concept

**All tools are reground and re-coated utilising the same advanced technology as for the manufacture of the tools.** And we regrind your tools with the same care that we use to manufacture new tools. We also RE•NEW® other tool brands with very good results. You will benefit from tool performances on reground tools which can match or even surpass the performance of new tools.



## 100% repeatability

Due to a unique internally developed norm system and a very advanced drawing database, we are able to deliver tools with the exact same geometries throughout all future deliveries, regardless in which Kyocera Unimerco manufacturing facility your tools are being produced.



**TURBINE MACHINING**

## Industrial tooling solutions

Kyocera Unimerco is a global manufacturer and distributor, providing standard and customised cutting tool solutions as well as know-how and optimisation guidance for the manufacturing industry.

The company was founded in 1964 and has since expanded into 17 countries, with more than 700 employees.

Today the company is part of the Japan-based Kyocera Corporation.



[www.kyocera-unimerco.com](http://www.kyocera-unimerco.com)