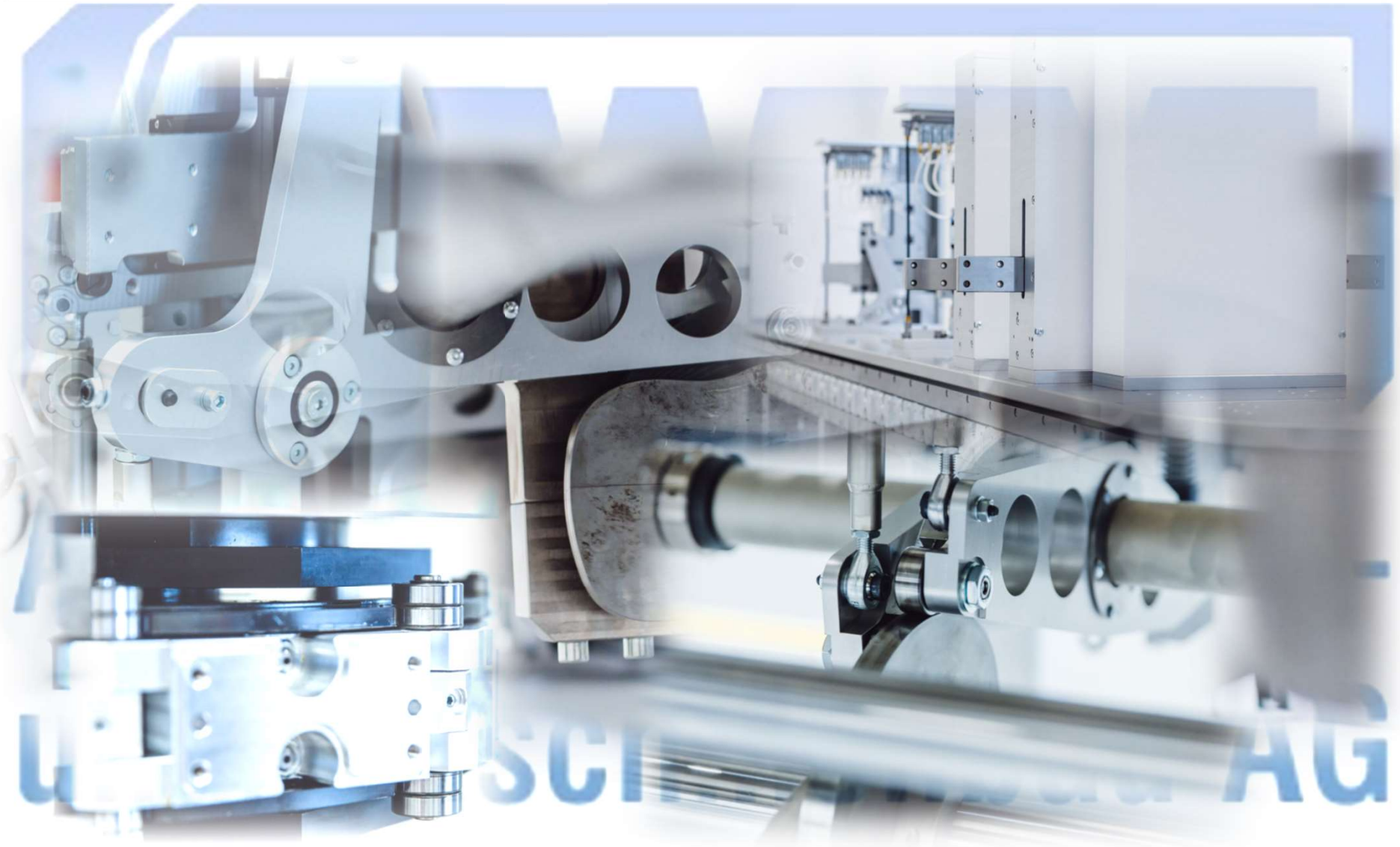


Overview: AWM - Cam Driven Line

With 80 cycles to Success



Arnstädter Werkzeug-
und Maschinenbau AG



AWM Cam Driven Line

... more than 20 years experience in Cam Controlled Automation...



Arnstädter Werkzeug-
und Maschinenbau AG

Why is AWM developing their own cam controlled assembly system?

- Market demands higher output at same precision level as before or even higher
- AWM has been working with cam-controlled technology for more than 20 years: Development and Manufacturing of our own special machines.

In recent past less number of platform providers available!

Our strategy! AWM faces a growing demand for a own cam controlled platform, In order to remain able to offer customized solutions independantly to the market.

Our Result: AWM Cam Driven Line! With 80 cycles to Success

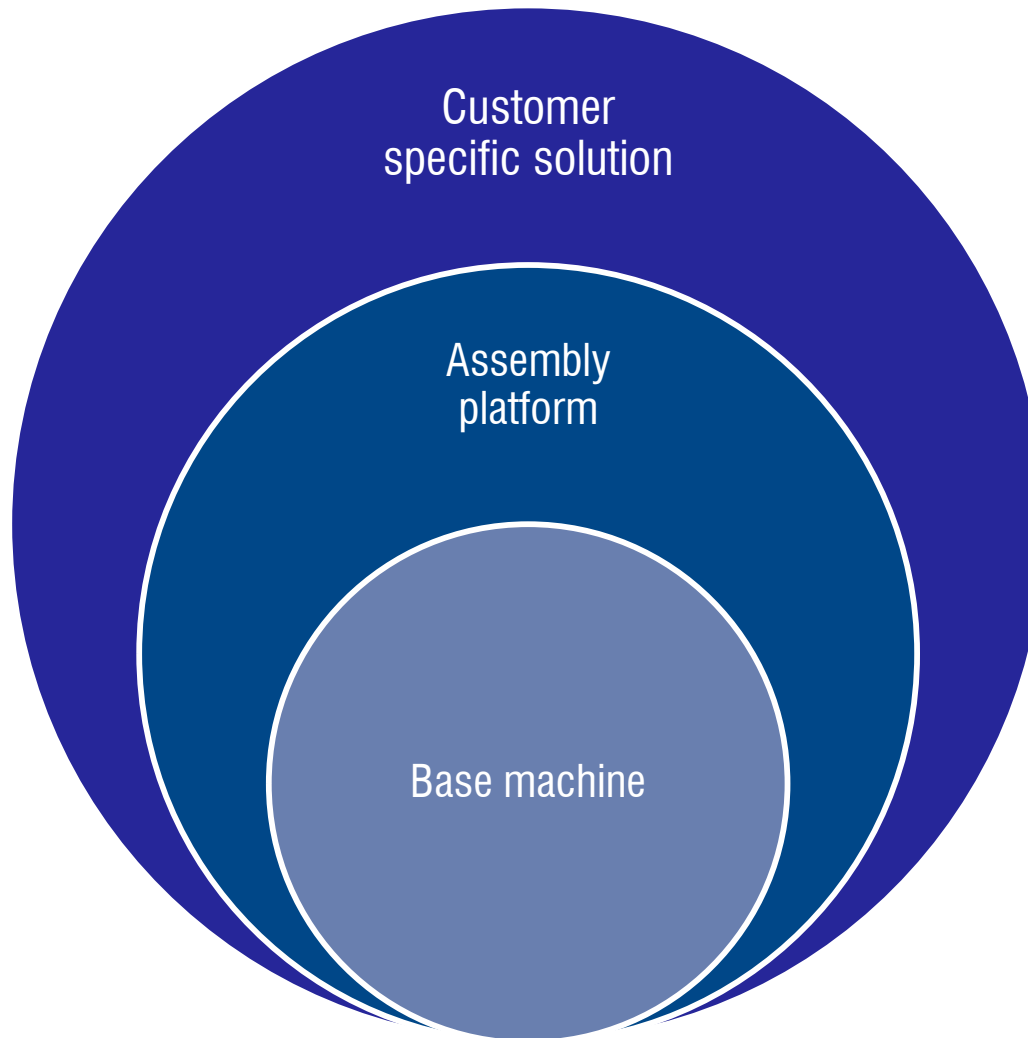




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und Maschinenbau AG

AWM CDL – Available out of 3 Levels

Base machine, Assembly platform & Customer's specific solution:



With 80 cycles to Success

AWM Cam Driven Line

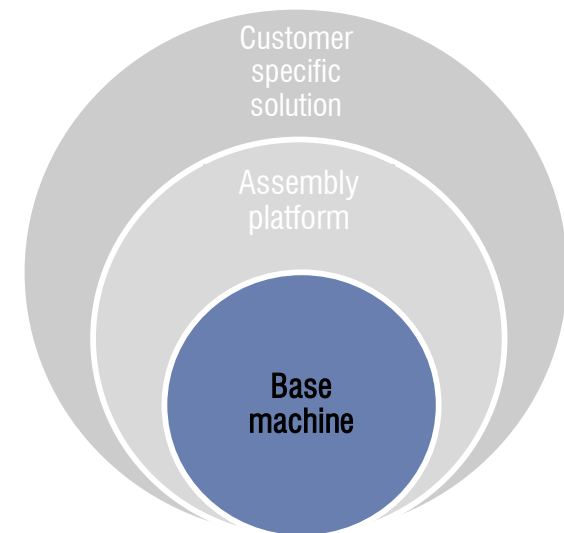
Features CDL:



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1. Base machine:

- Basic frame as solid welded steel construction by AWM
- Free choice number of handlings and double-cam-discs by AWM
- Main drive consisting of **Siemens** servo motor and **Neugart** planetary gear box
- Precision King-Shaft with keyways by **Bosch-Rexroth**
- Longitudinal transfer via conveyor chain LFA 125 by **Taktomat**



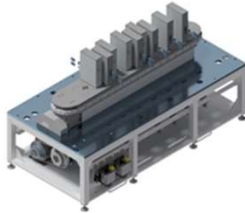
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AWM Cam Driven Line

1. CDL Base machine variants



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Variant	Type CDL 2000	Type CDL 3000	Type CDL 4000	Cycle rate:	Up to 80 cycles per minute
Centre distance [mm]	2000	3000	4000	Output:	160, 240, or 320 parts per minute depending on the number of workpiece mounts
Station distance [mm]	250	250	250	Station distance:	250 mm
Number of stations	16	24	32	Shift angle:	120 degrees (=transfer time), 240 degrees (=available process time)
Number of active workpiece carriers	24	32	40	Horizontal travel of the units:	up to 120 mm
Weight	4000 kg	5000 kg	6000 kg	Vertikal travel of the units:	up to 60 mm
Frame LxWxH [mm]	3000 x 1280 x 2800	4000 x 1280 x 2800	5000 x 1280 x 2800	Workpiece dimensions:	80 mm x 80 mm x 150 mm
  				Workpiece weight:	(L x W x H) maximum 1000 g
				Central lubrication for cam discs	yes
				Implementation at least in clean room class ISO 6	yes

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AWM Cam Driven Line

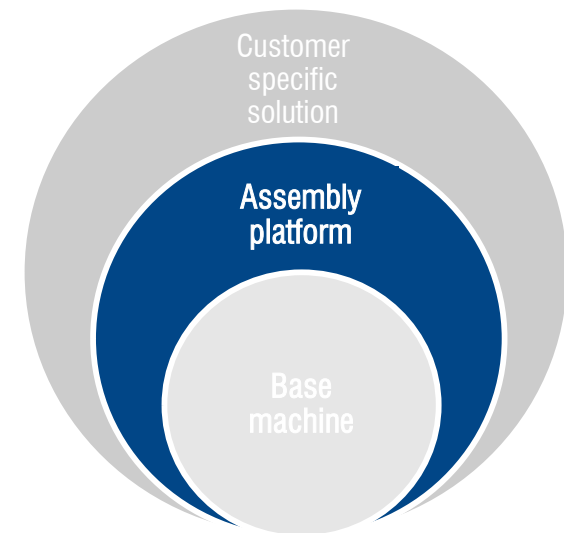
Features CDL:



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2. Assembly platform:

- *Base machine*
- Safety enclosure incl. illumination and switch&control cabinet
- Electrical basic installation
- Pneumatic basic installation by FESTO
- Control-CPU und HMI by Siemens
- SPS-Software Base Frame



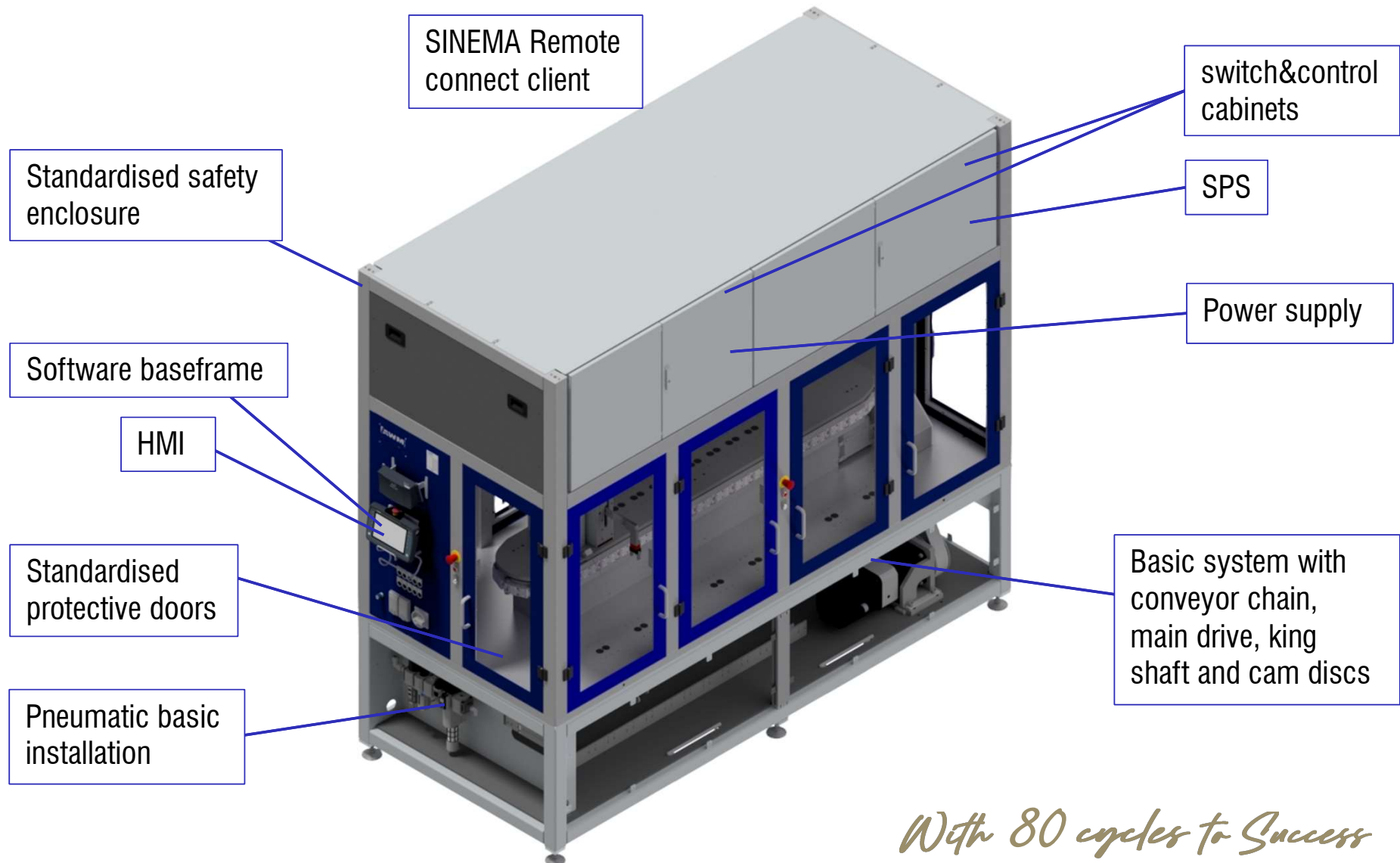
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2. CDL Assembly platform



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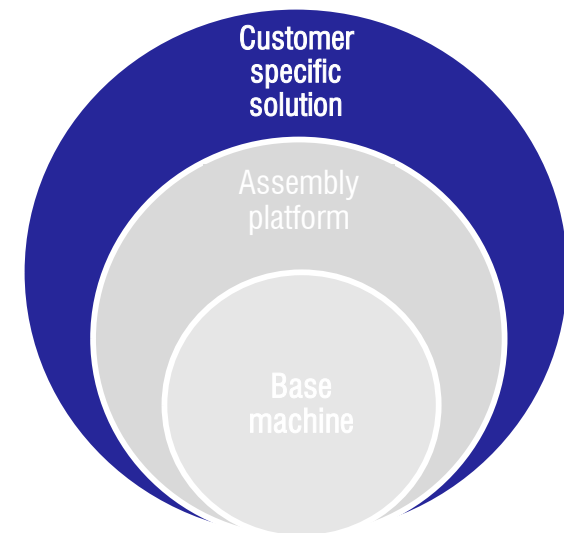
Features CDL:



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3. Customer specific solution:

- *Assembly platform*
- Complete workstations
- Feeding/ parts issuing
- Full installation, setting and programming
- Extensive testing
- Installation and commissioning at place



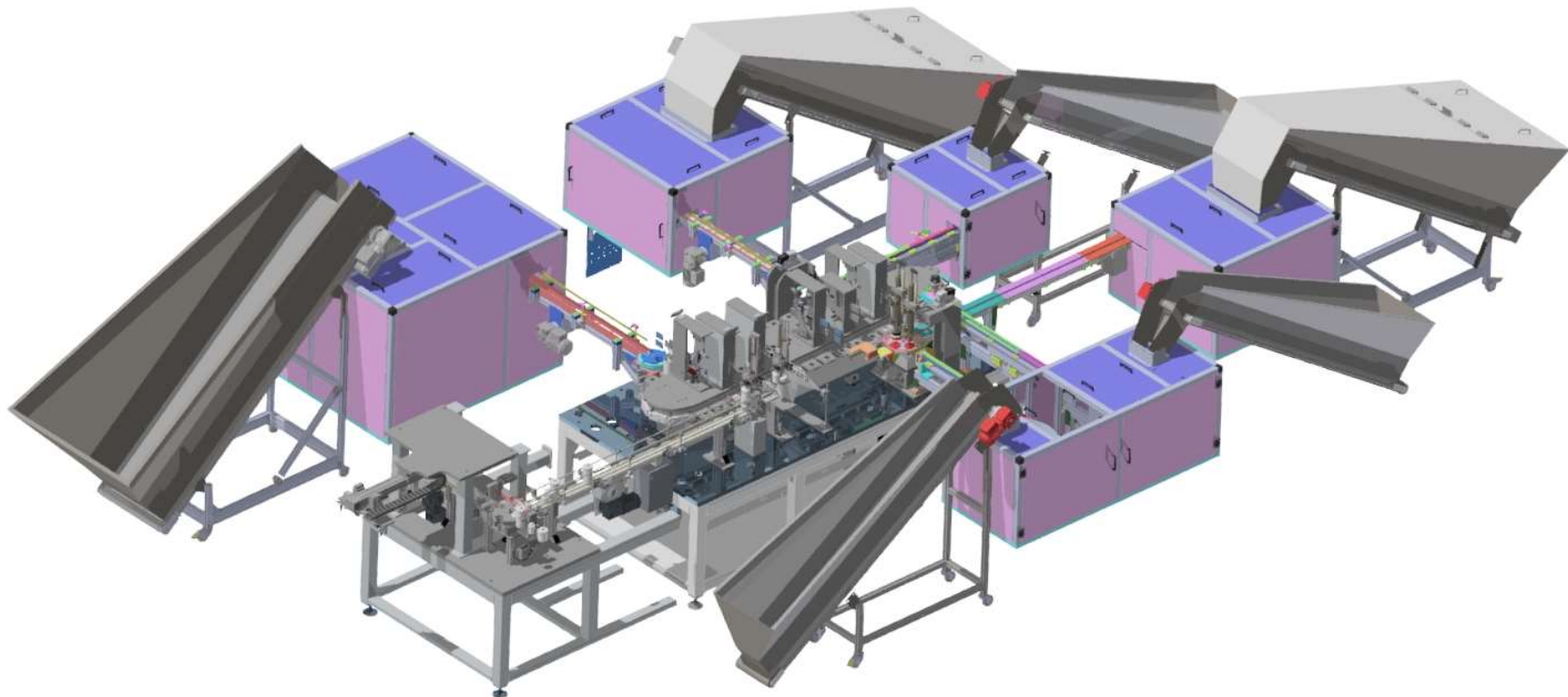
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3. Customer specific solution (Example)



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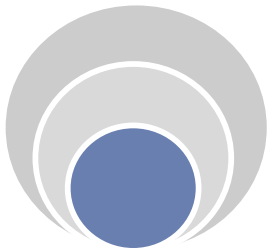
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Advantages for our Customers:



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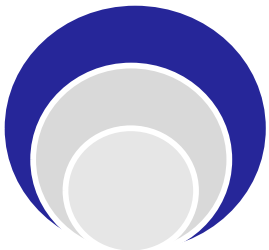
as Basic machine:

- Consistent modular assembly set with short lead time
- Wide choice of handling units extensible and completable by customer



as Assembly platform:

- Extended modular assembly set
- Use as a basis for machine projects with standardized components
- Wide choice of handling units extensible and completable by customer



as Customer specific solution:

- Cost efficiency
- Short period of Amortisation
- Cycle rates up to 80 per minute (with 1kg part weight)
- Highest repeatability
- Low lifecycle cost

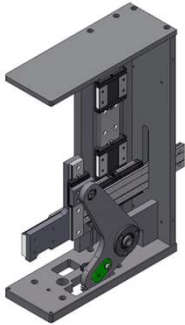
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AWM Cam Driven Line

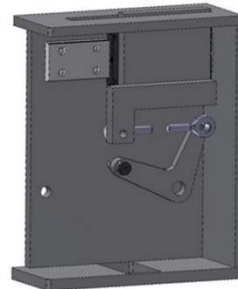
Handling Modules (Excerpt):



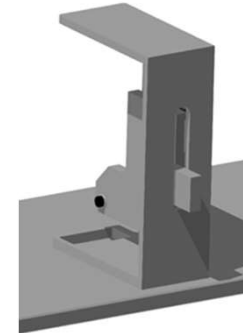
Arnstädter Werkzeug-
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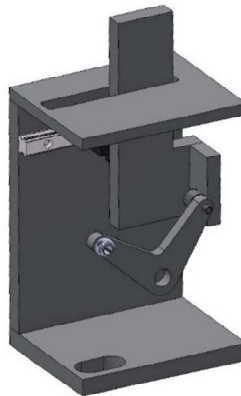
Horizontal/ Vertical translator



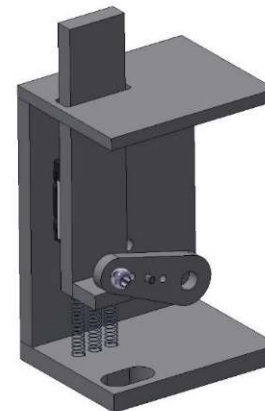
Horizontal unit (single)



Vertical unit (single)



Horizontal divider



Vertical divider

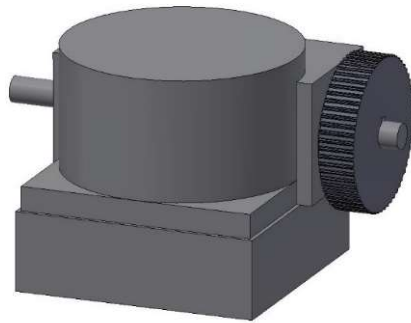
With 80 cycles to Success

AWM Cam Driven Line

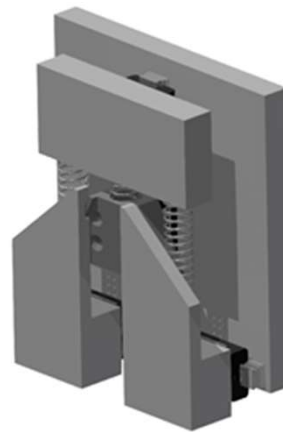
Special Units CDL (Excerpt):



Arnstädter Werkzeug-
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Satellite roundtable



Centering gripper



Rotary feeder

With 80 cycles to Success

LOCATION - Industrial Area „Erfurter Kreuz“



Arnstädter Werkzeug-
und Maschinenbau AG

We are located in the center of Germany, in the middle of Thuringia, near the Autobahn interchange of A4 & A71



Your regional contacts :

Northern and Central Germany
Stefan Recke (0176-11734182)
<mailto:stefan.recke@awm-ag.de>

Southern Germany/ Switzerland/ Austria
Martin Pfuderer (0172-7347151)
<mailto:martin.pfuderer@mp-iv.com>