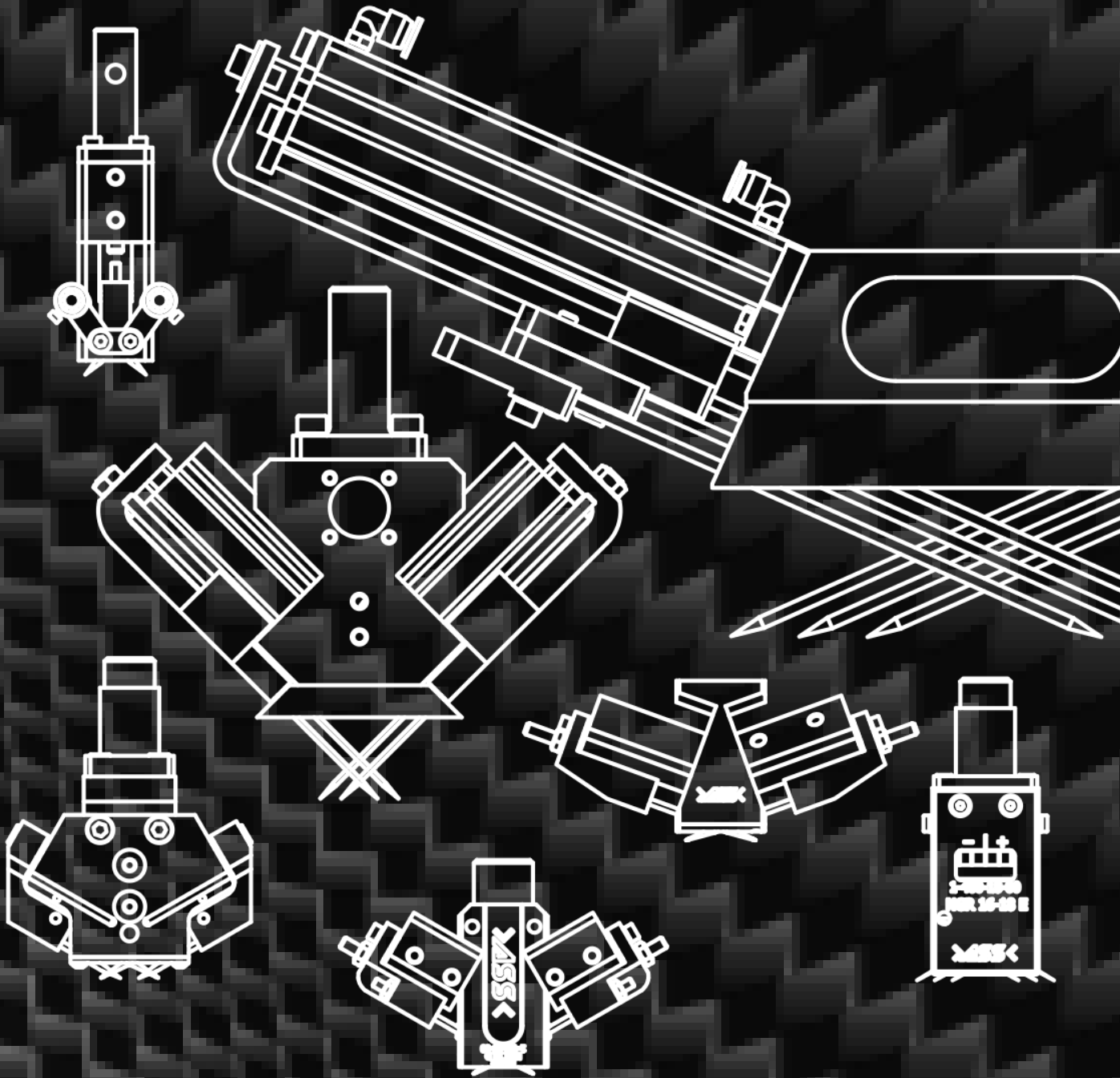


**CO₂ NEUTRAL
PRODUCTION**

>ASS<
Automations-Systeme



Needle Grippers Gripping Solutions for Limp Materials

Needle Grippers & Gripping Solutions for Limp Materials

Increasingly lighter construction methods require the use of components made of fiber composite materials. Every gram of material saved counts, and not only in electromobility. A wide variety of limp materials often have to be moved reliably, from natural fibers to carbon fiber fabrics to voluminous foams or the thinnest of fine materials.

With our mechatronic needle grippers, we offer you solutions that have been tried and tested in practice - with excellent properties!

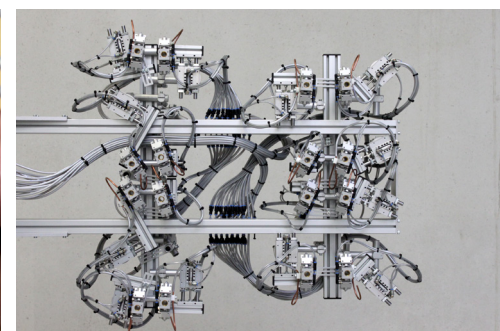
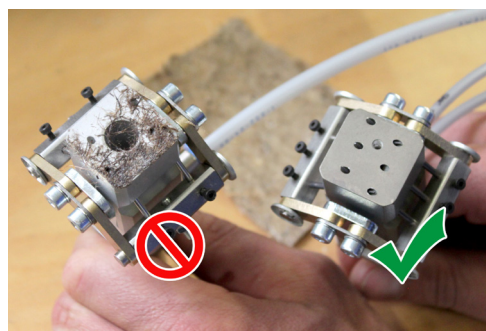
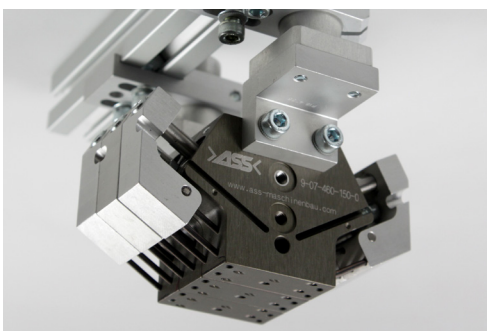
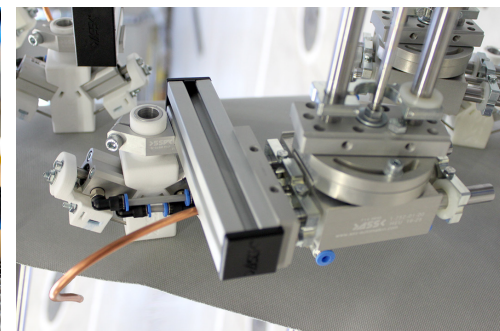
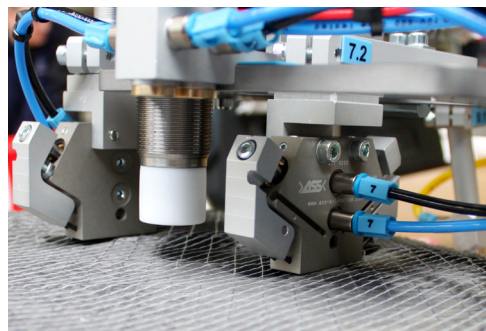
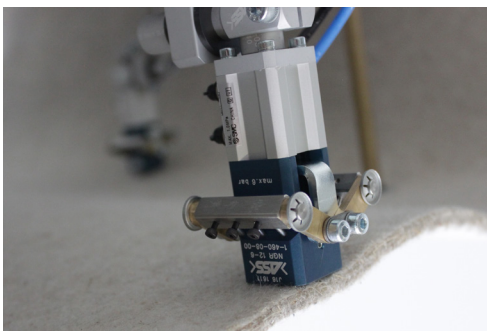
Small and precise piercing depths for safe gripping and lifting of stacks, inserting parts to be back-injected into the injection molding machine, picking up high-temperature masses and organo sheets, through to handling foam and felt mats with extra-long needles.

Regardless of whether functional insulation materials, sensitive interior materials or other materials are being handled:

We at ASS Maschinenbau GmbH offer you the needle gripper that suits your requirements directly from stock or develop a tailor-made and process-reliable one for you in the shortest possible time Solution. You can always recognize needle grippers in our catalog by the abbreviation NGR.

As a German manufacturer with almost 40 years of experience, we produce climate-neutrally and supply you with customer-oriented and high-quality products and solutions for handling your products. The modular system enables gripping solutions to be adapted to all product areas and production processes.

We are at your disposal as a contact person for solving your tasks for a non-binding consultation. You can reach us by telephone on +49 (0)2206/90547-0 or by e-mail at info@ass-maschinenbau.de.



METHODICALLY

A needle gripper solution is available for every handling task. Flexible materials and components made of fiber composite or foam materials and textiles of all kinds can be handled reliably. The catalog portfolio therefore includes needle grippers with penetration depths from zero to over 80 millimeters and needle grippers with four to 36 needles.

HEAT RESISTANT

Needle grippers and insulators that come into contact with components with heat-resistant properties enable process-reliable handling of temperature-controlled materials. Even in heating fields, organo sheets or tough compound masses can be moved safely. Components such as heat-resistant vacuum cups are also available.

NON-STICKING

Special coatings enable handling of sticky and adherent materials. For example, sheet-mould-compound (SMC) and other sticky fiber matrix semi-finished products can be handled without residue.

Needle grippers with PTFE-coated contact surfaces and/or needles are used to suit your solution to enable residue-free gripping.

SOLUTION-ORIENTED

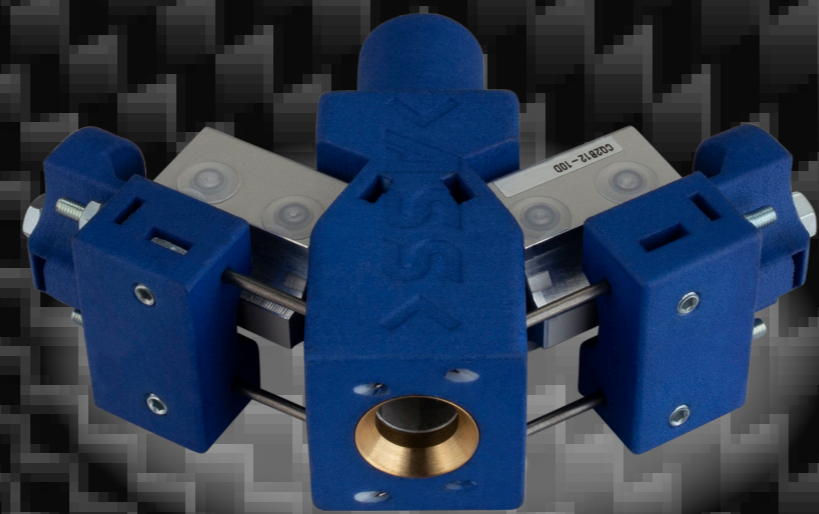
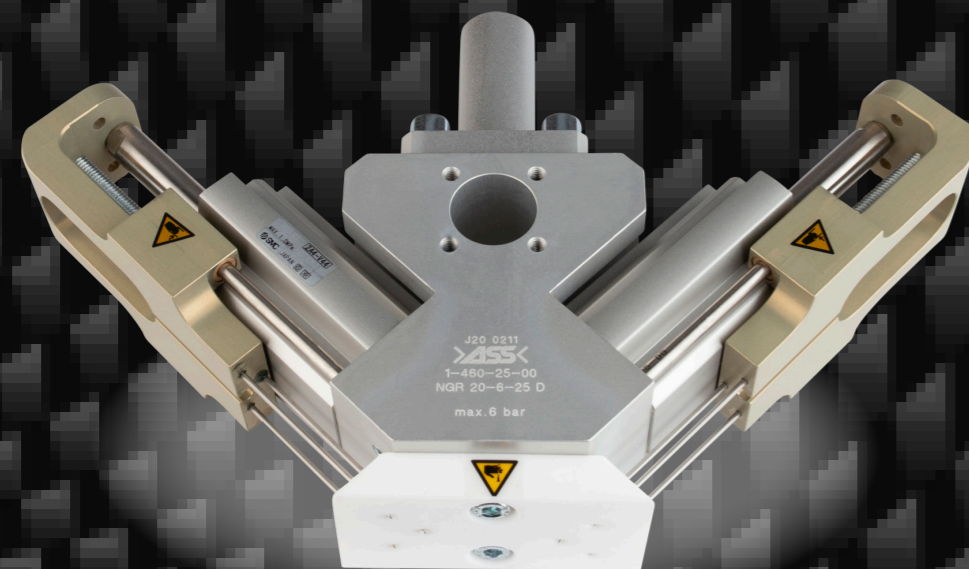
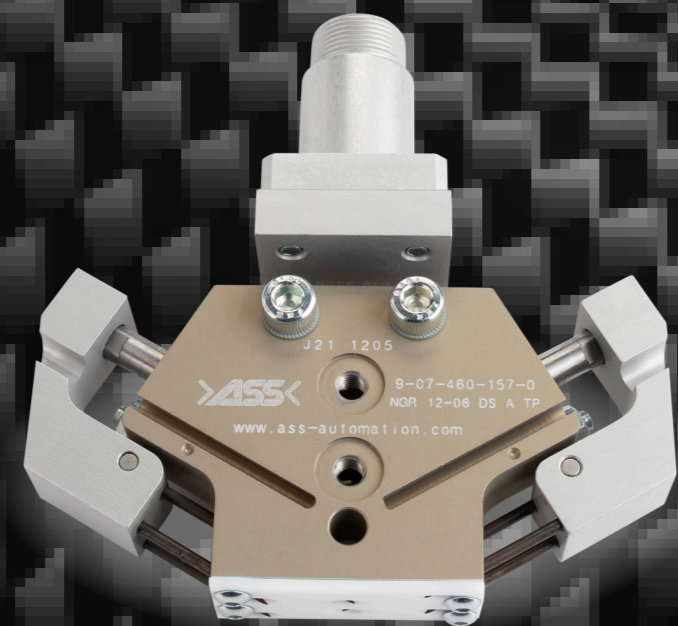
We will find solutions for you and your handling tasks – regardless of whether it is a prototype or series production.

Based on our needle grippers in the construction kit catalogue, we adapt the needle gripper to suit your projects.

SCALABLE

Our large selection of standardized needle grippers, with their different properties and sizes, enables a wide range of applications. Parameters such as the piercing angle or the number of needles can be adjusted.

Needle Grippers & Gripping Solutions for Limp Materials



ASSEMBLING CONNECTIONS

Our modular system contains numerous cross-system connections to enable you to integrate the needle grippers economically and easily. For example, our robot hand kit also includes spring-loaded connections as a standard component.

TESTING & FIELD TRIALS

Material tests are particularly important for limp or adhesive materials. We will be happy to advise you on site or carry out tests at our site in Overath. The difference is particularly clear in the example shown of renewable natural fibers with a compound admixture that adheres when heated: no natural fibers remain on the non-stick coated needle gripper cling.

QUALITY & SUSTAINABILITY

ASS components are technically high-quality, durable and always an economical solution. We develop, design and produce our components at the certified climate-neutral location in Overath.

Your carbon footprint will also benefit from the reduction in emissions in Scope 3.

ABILITY TO DELIVER

Our high level of vertical integration enables us to react quickly to your requests.

EXCERPT OF THE ASS NEEDLE GRIPPERS

The examples of our needle grippers show the diversity of variants. Further special versions with, for example, individual piercing angles or depths can be realized at short notice thanks to our own development and production - and this is usually at a price level similar to that in a catalogue. Each needle gripper has its individual advantages and our technical advice will work with you to determine the needle gripper that suits your application.

Part No.	Description	Number of needles	Penetration depth [mm]	Penetration angle [°]	Needle Ø [mm]	Contact area	Span, max. ca. [mm]	limp/flexible	tempered	sticky	voluminous	others
1-460-03-00	NGR X 16-10	4	0-5	30	2	Aluminium	65	x				
1-460-06-00	NGR 12	4	0-4	45	2	Aluminium	58	x				*1
1-460-08-00	NGR 12-6	6	0-4	45	2	Aluminium	55	x				
1-460-09-00	NGR 12 D	4	0-2,5	30	2	Aluminium	116	x				*2
1-460-10-00	NGR 12-10 D	10	0-2,8	20	2	PTFE	130	x	x	x		*3
1-460-12-00	NGR 12 DL	4	0-2,5	30	2	Polyamid	121	x				*2,7
1-460-13-00	NGR 12-8 DK	8	0-2,5	30	2	Aluminium	120	x				*2,7
1-460-14-00	NGR 12-8 D	8	0-2,5	30	2	Aluminium	116	x				*2
1-460-19-00	NGR 16-18 EZ	18	0-1,8	30	0,7	Steel	36	x				*4,8
1-460-25-00	NGR 20-6-25 D	6	0-25	45	1,5	PTFE	233	x	x	x	x	*5,8
1-460-30-00	NGR 16-10-7 D	10	0-7	30	1,5	PTFE	123	x	x	x		*6,8
1-460-33-00	NGR 16-10-15 D	10	0-15	30	1,5	PTFE	177	x	x	x	x	*6,8
1-460-70-00	NGR 12-6 DS A	6	0-5	30	2	Aluminium	100	x	x			*6,8
9-07-460-060-0	NGR 12-10 D EST	10	0-4,5	20	2	PTFE	130	x	x	x		*3
9-07-460-157-0	NGR 12-6 DS A TP	6	0-5	30	2	PTFE	100	x	x	x		*6,8
9-07-460-200-0	NGR 25-6-88 D	6	0-88	45	4	PTFE	555	x	x	x	x	*5,8
9-07-460-210-0	NGR 32-36-50 D	36	0-55	24	4	PTFE	755	x	x	x	x	*5,8

- *1 - magazine rod, centering mandrel or similar can dip into it
- *2 - magazine rod, centering pin or similar can dive through completely
- *3 - specially designed contact surface to wipe off buildup
- *4 - additional cover for very thin fabrics included
- *5 - also suitable for SMC materials, for example
- *6 - can be bundled, needles additionally coated with PTFE
- *7 - weight-optimized lightweight construction
- *8 - Basic and working position can be queried as an option

MORE SOLUTIONS

You can find a comprehensive overview of all mechatronic components in our online catalogue:



GRIP THE GREEN TURN.

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AUTOMATION
SYSTEMS AND
SOLUTION



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