



Hand in hand for tomorrow



## Product Information

Customizable gripper fingers FGR

## 3D-PDF

For 360° view of the construction, activate the 3D PDF by mouse click on the picture

## FGR AL-2-PGN-plus-P 160

for grippers:

PGN-plus-P 160-2-AS-P

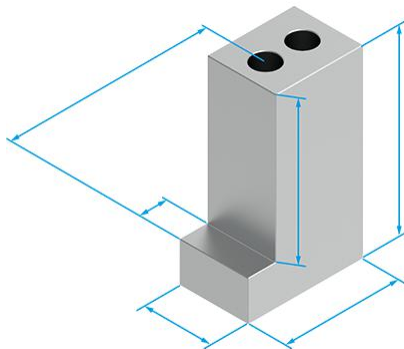
based on:

Geometry model- 2

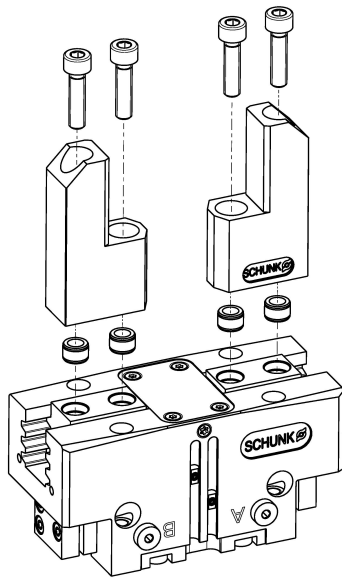
set parameters:

BR (Selection series)	PGN-plus-P
BGVR (Size / Variant)	PGN-plus-P 160-2-AS-P
ASIS (O.D. gripping / I.D. gripping)	O.D. gripping
SPANNKONT (Geometry model)	Gripper finger with inwardly stepped gripping surface
CNSMAT (Material)	Aluminum AlZnMgCu1,5
WAERMEBE (Surface treatment)	
HUB (Jaw position: Gripper stroke per jaw (0 = gripper closed) / mm)	8.0
RH (Gripping position: Gripping stroke per jaw at which the workpiece is gripped / mm)	6.5
X (Finger length in stroke direction (X) / mm)	110.0
Y (Finger width (Y) / mm)	45.0
Z (Finger length (Z) / mm)	200.0
DWS (Distance workpiece (DWS) / mm)	165.0
ABK (Distance from hole to outer edge (ABK) / mm)	12.00
GFL (Gripping surface length (GFL) / mm)	160.0
PP (Position Prism (PP) / mm)	0.0
PW (Prism Angle (PW) / °)	0.0
RA (Radius Outside (RA) / mm)	0.0
EFO (Insertion opening (EFO) / mm)	0.0
FASE1 (Chamfer 1)	without chamfer 1
FL1 (1st chamfer length (FL1) / mm)	0.0
FASE2 (Chamfer 2)	without chamfer 2
FL2 (2nd chamfer length (FL2) / mm)	0.0
FASE3 (Chamfer 3)	without chamfer 3
FW3 (3rd chamfer angle (FW3) / °)	0.0
FL3 (3rd chamfer length (FL3) / mm)	0.0
FASE4 (Chamfer 4)	without chamfer 4
FW4 (4th chamfer angle (FW4) / °)	0.0
FL4 (4th chamfer length (FL4) / mm)	0.0
ZULFM (Max. permissible mass per finger / kg)	3.800

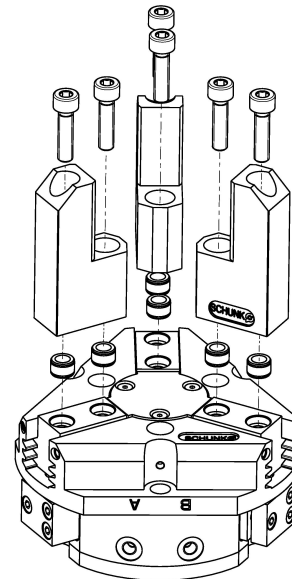
## Geometry model- 2



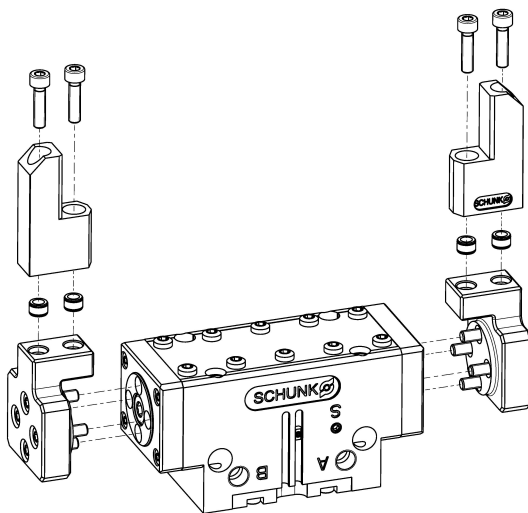
## Assembly instructions



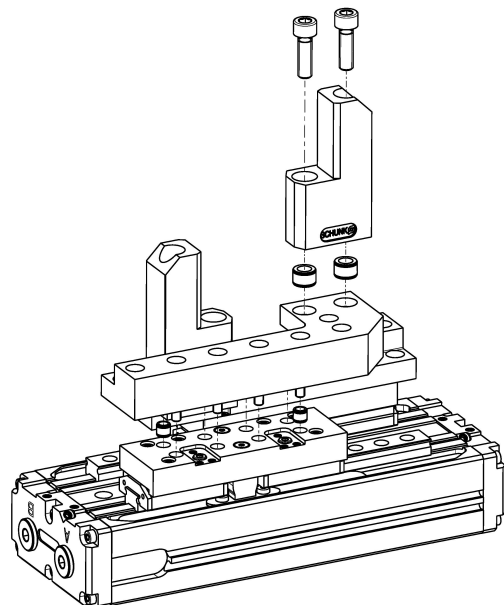
Parallel gripper



Centric Grippers



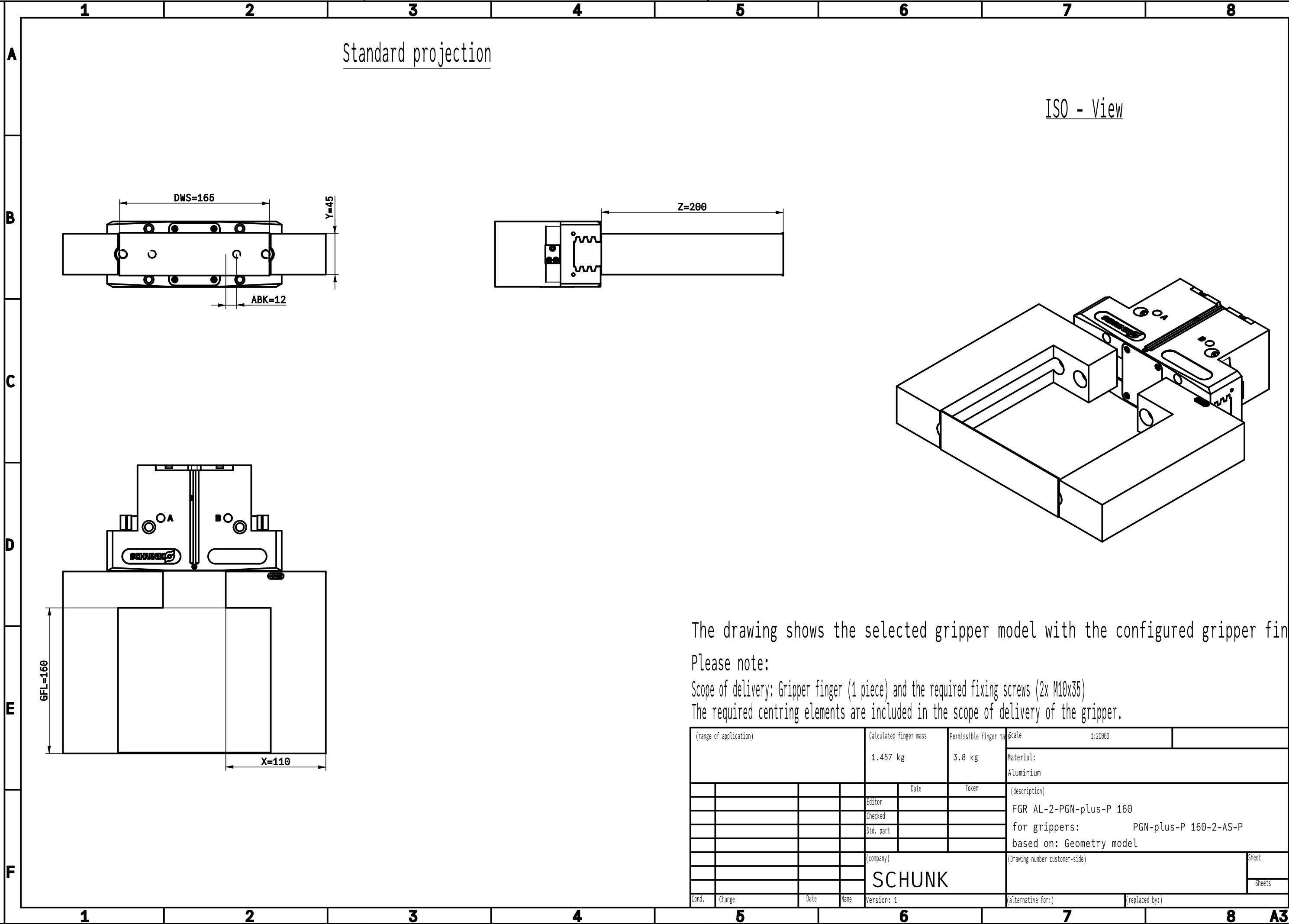
lateral intermediate jaw



Intermediate jaw

# Anzugsmomente für Schrauben

Anzugsmomente nach Tabelle entsprechend Festigkeitsklasse		<ul style="list-style-type: none"><li>• Zylinderschrauben DIN 912 (auch Torx)</li><li>• Sechskantschrauben</li><li>• Senkschrauben mit Innentorx</li></ul>					
Anzugsmoment nach Tabelle entsprechend Festigkeitsklasse aber max. Festigkeitsklasse 8.8		<ul style="list-style-type: none"><li>• Zylinderschrauben DIN 6912 und DIN 7984</li><li>• Senkschrauben mit Innensechskant</li><li>• Passschrauben</li><li>• Linsenschrauben</li><li>• Muttern</li><li>• Schrauben die in Aluprofil (SI) eingeschraubt werden</li><li>• Schraubenköpfe die auf Aluminium aufliegen das nicht harteloxiert ist</li></ul>					
	Festigkeitsklassen / Anziehdrehmoment in Nm						
	Reibungszahl $\mu_{ges.}$ 0,12						
Gewinde	A2-70	8.8	10.9	12.9	Kopfauflage Kunststoff PA2200	Gewindestift A2/A4	Gewindestift 45H
M 1	0,029	0,037	0,054	0,063	0,005		
M 1,2	0,055	0,071	0,1	0,12	0,012		
M 1,4	0,087	0,11	0,16	0,19	0,023		
M 1,6	0,13	0,16	0,24	0,28	0,031	0,054	0,078
M 2	0,27	0,34	0,5	0,58	0,062	0,1	0,17
M 2,5	0,53	0,68	1,0	1,2	0,11	0,32	0,5
M 3	0,94	1,2	1,8	2,1	0,21	0,43	0,76
M 4	2,2	3,1	4,5	5,3	0,45	0,95	1,8
M 5	4,3	6,1	9,0	11	0,86	2,0	3,5
M 6	7,3	10	15	18	1,3	2,8	6,1
M 8	18	25	37	43	2,9	7,6	14
M 10	35	49	72	85	5,7	16	28
M 12	60	85	120	150	6,7	27	49
M 14	95	130	200	230	11		
M 16	150	210	310	360	18	65	120
M 18	200	290	420	490	20		
M 20	290	410	600	700	34	130	230
M 22	380	540	790	930	26		
M 24	490	700	1.000	1.200	62	230	390
M 27	750	1.100	1.600	1.800	140		
M 30	980	1.400	2.100	2.400	120		
M 33	1.300	1.900	2.800	3.300	170		
M 36	1.700	2.400	3.600	4.200	220		
Fein- gewinde	A2-70	8.8	10.9	12.9	Kopfauflage Kunststoff PA2200	Gewindestift A2/A4	Gewindestift 45H
M 8x1	19	27	39	46	2,8		
M 10x1,25	36	52	76	89	5,6		
M 12x1,25	64	92	130	160	6,5		
M 14x1,5	100	150	210	250	10		
M 16x1,5	150	220	320	380	18		
M 18x1,5	220	320	470	540	19		
M 20x1,5	310	440	650	760	32		
M 22x1,5	410	580	860	1.000	25		
M 24x2	530	760	1.100	1.300	60		



The drawing shows the selected gripper model with the configured gripper finger

Please note:

Scope of delivery: Gripper finger (1 piece) and the required fixing screws (2x M10x35)

The required centring elements are included in the scope of delivery of the gripper.