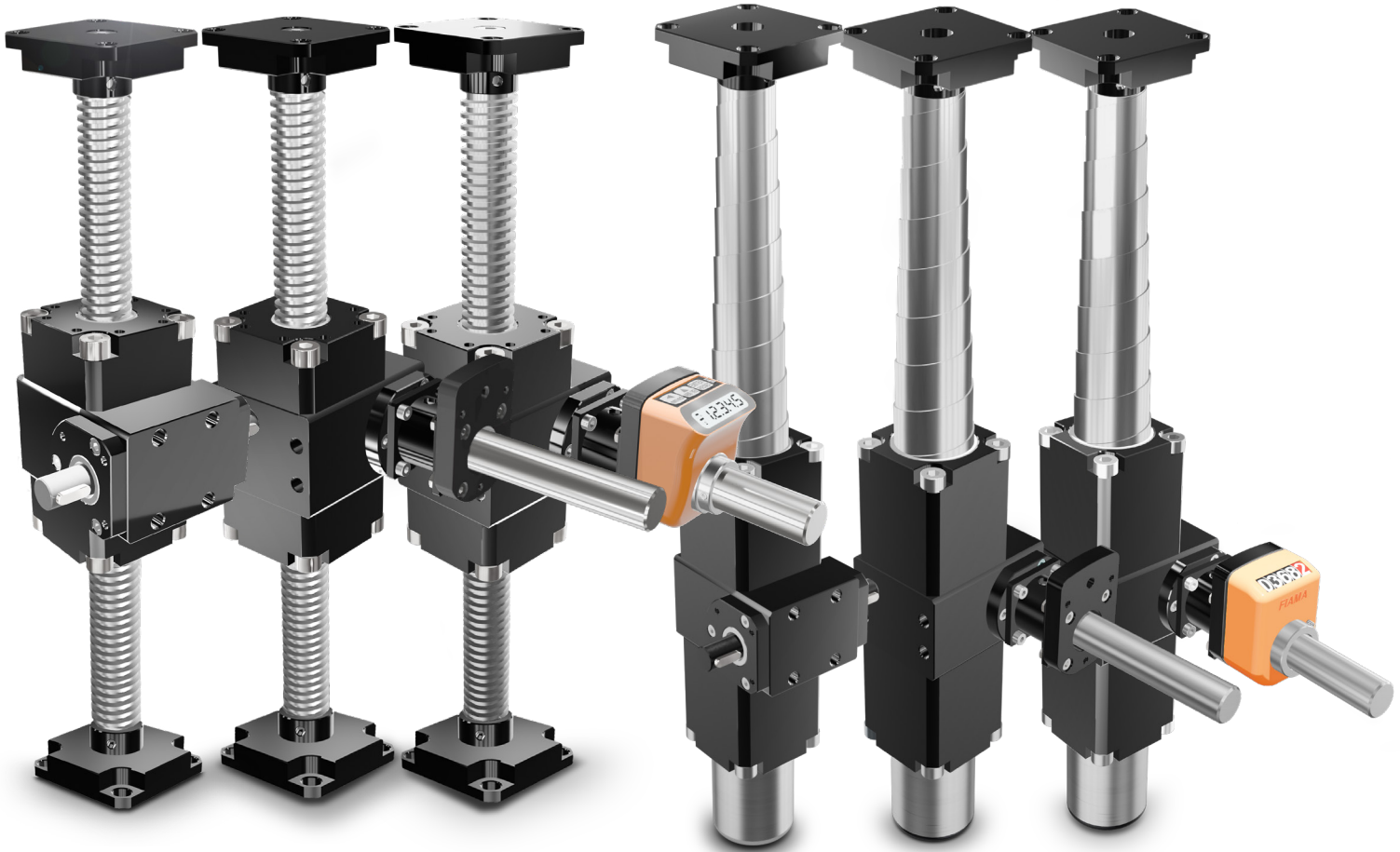




SCREW JACKS <lifting and actuation systems>

SPINDELHUBGETRIEBE <Hub- und Antriebssysteme>

Mechanical Jacks – Precise, Reliable, Modular

- Convert rotary motion into precise linear movement.
- High-quality components and long-life lubrication for smooth, maintenance-free operation.
- Modular design for synchronized motion and easy system integration.
- Use individually or in groups via shafts, couplings, and bevel gear drives.
- Manual or motorized operation.

Key Features

- Stainless steel trapezoidal screw TPN Ø25 – pitch 5 mm
- Lightweight, corrosion-resistant anodized aluminum housing
- Hardened steel shafts and gears with high-resistance surface treatment
- Axial load on input shaft: **200 kg**
- Standard strokes: 100 – 1000 mm

Available versions and accessories

- Flange and shaft extension for digital “OP7” or programmable “EP7” indicators (MAR60 FL-OP7)
- Rigid stainless steel protection with spiral spring, **up to 650 mm stroke**

Mechanische Hubgetriebe – Präzise, zuverlässig, modular

- Wandeln Drehbewegung in präzise lineare Bewegung um
- Hochwertige Komponenten und langlebige Schmierung für reibungslosen, wartungsfreien Betrieb
- Modulares Design für synchronisierte Bewegungen und einfache Systemintegration
- Einzel- oder Gruppenbetrieb über Wellen, Kupplungen und Kegelradgetriebe
- Manuelle oder motorisierte Ausführung

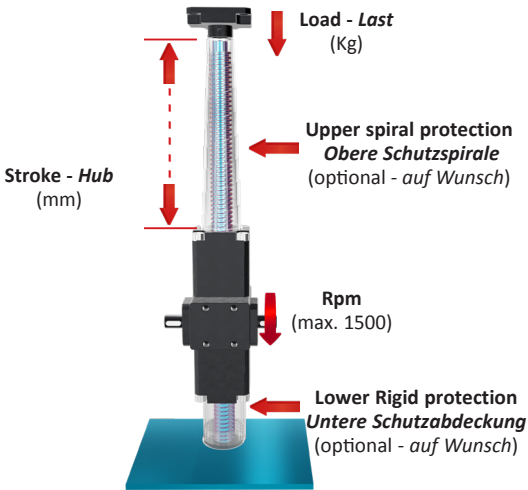
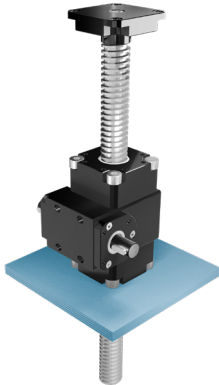
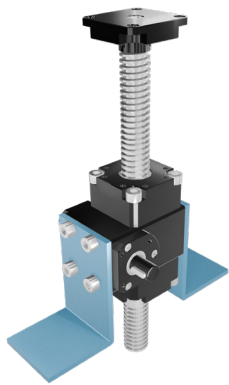
Hauptmerkmale

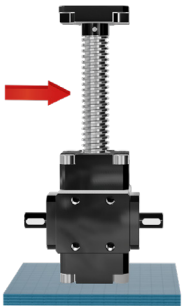
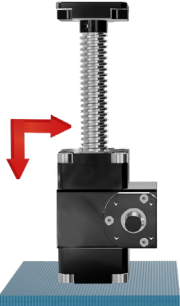
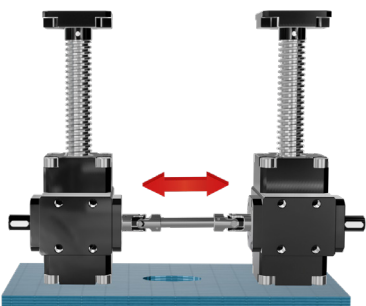
- Trapezspindel aus Edelstahl TPN Ø25 – Steigung 5 mm
- Leichtes, korrosionsbeständiges Gehäuse aus eloxiertem Aluminium
- Gehärtete Stahlwellen und Zahnräder mit hochresistenter Oberflächenbehandlung
- Axialbelastung auf Eingangswelle: **200 kg**
- Standardhübe: 100 – 1000 mm

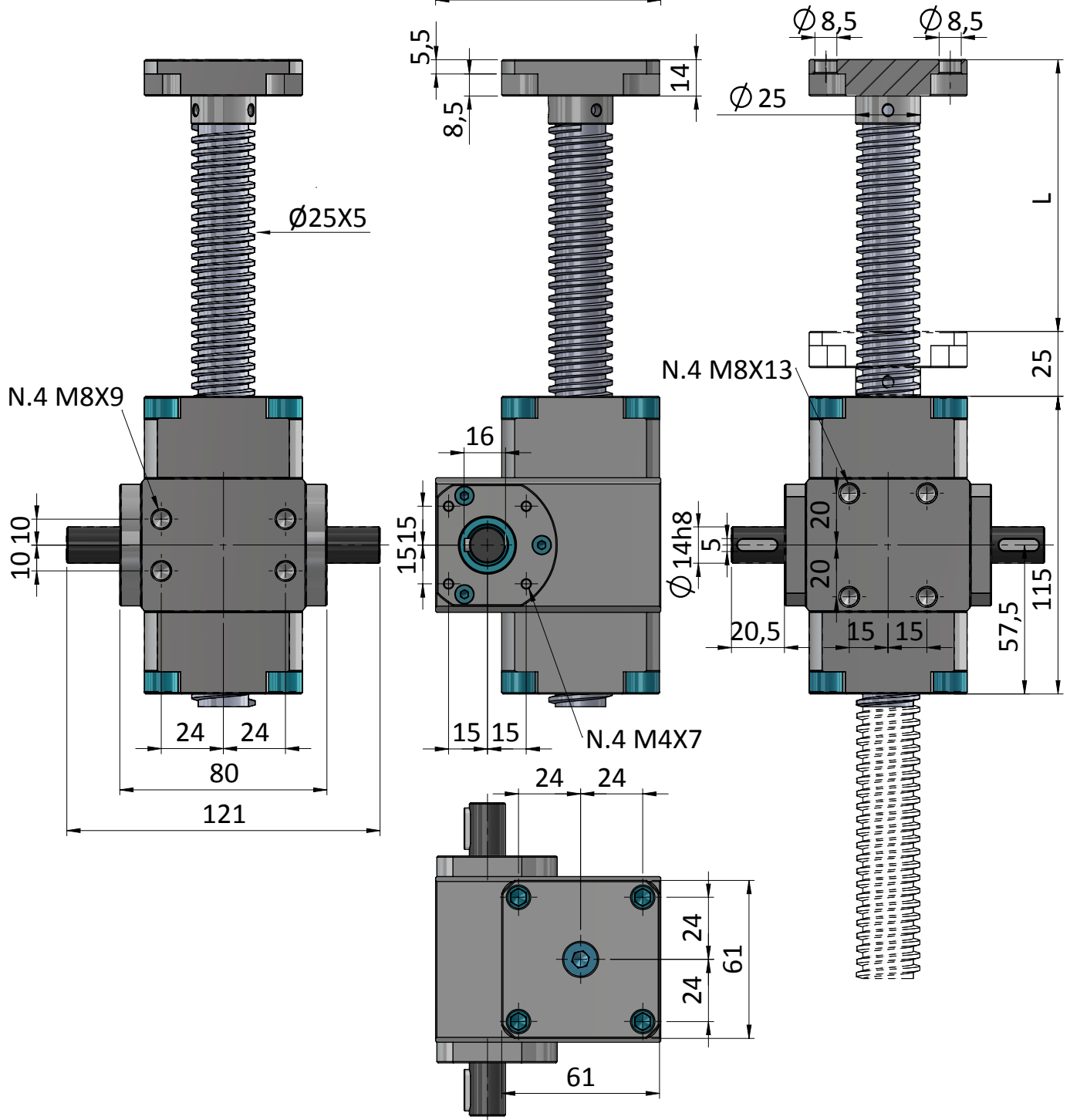
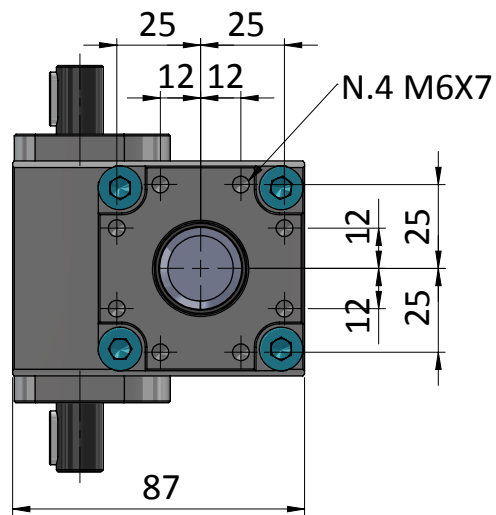
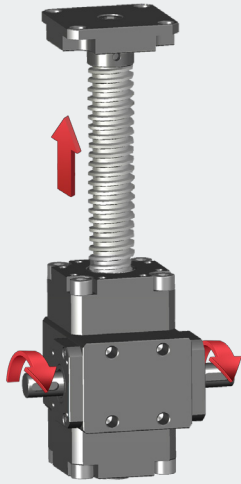
Verfügbare Versionen und Zubehör

- Flansch und Wellenverlängerung für digitale „OP7“- oder programmierbare „EP7“-Anzeigeeinstrumente (MAR60 FL-OP7)
- Starre Schutzabdeckung aus Edelstahl mit Spiralfeder, **bis zu 650 mm Hub**

Screw rotation direction - <i>Spindel Drehrichtung</i>	DX / clockwise - <i>im Uhrzeigersinn</i>
Screw dimension - <i>Spindelabmessung</i>	TPN Ø25 pitch - <i>Steigung 5 mm</i>
Trapezoidal screw material - <i>Trapezspindel Material</i>	AISI 304: stainless steel - <i>Edelstahl</i>
Screw weight/m - <i>Spindel Gewicht/m</i>	1,5 kg
Carter material - <i>Gehäuse Material</i>	black anodized aluminium - <i>Aluminium schwarz eloxiert</i>
Carter weight - <i>Gehäuse Gewicht</i>	1,5 kg
Material spiral spring - <i>Spiralfeder Material</i>	AISI 301: stainless steel - <i>Edelstahl</i>
Material rigid protection - <i>Schutzrohr Material</i>	AISI 303: stainless steel - <i>Edelstahl</i>
Shafts/ Gears material - <i>Wellen- und Verzahnungsmaterial</i>	treated steel - <i>verhärtetes Stahl (PRONOX)</i>
Max input rotation speed - <i>Max Eingangsumdrehungsgeschwindigkeit</i>	1500 Rpm
Axial load (trapezoidal screw) - <i>Axialbelastung (Trapezgewindespindel)</i>	1500 kg (500 kg with side support - <i>mit Seitenlager</i>)
Max gear-play tolerance - <i>Max Getriebespieltoleranz</i>	0,75° ÷ 1.5°
Life - <i>Lebensdauer</i>	10.000 hours - <i>Stunden</i>
Grease lubrication - <i>Fettschmierung</i>	San eg LX EP 2 (< 200 rpm)
Oil lubrication - <i>Ölschmierung</i>	Castrol Optigear 1100/100 (> 200 rpm)
Working temperature - <i>Betriebstemperatur</i>	-20 +80°

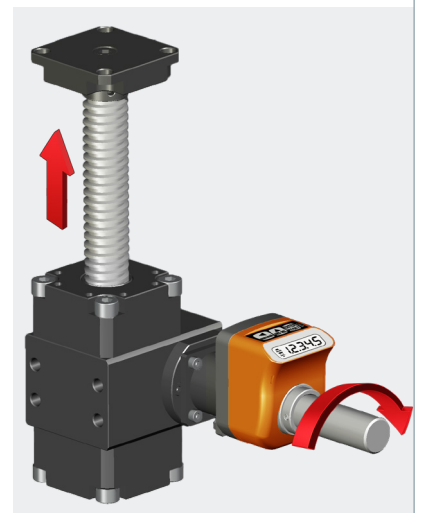
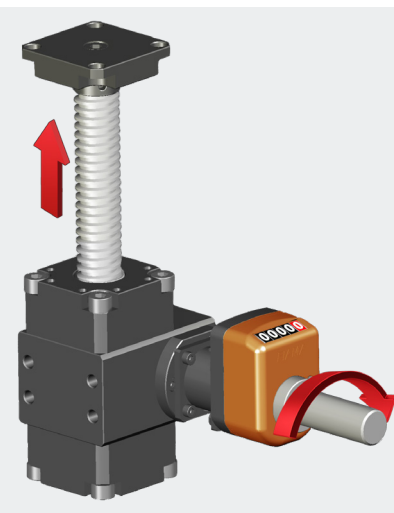
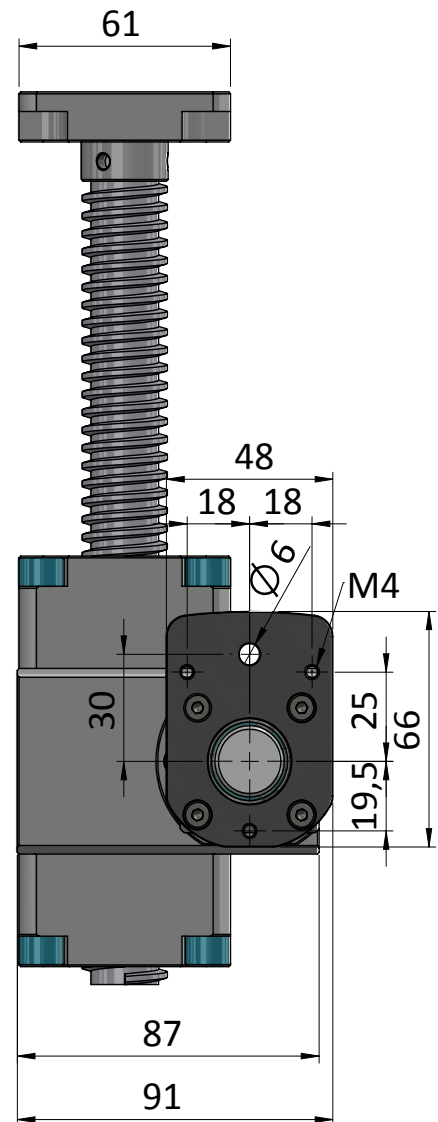
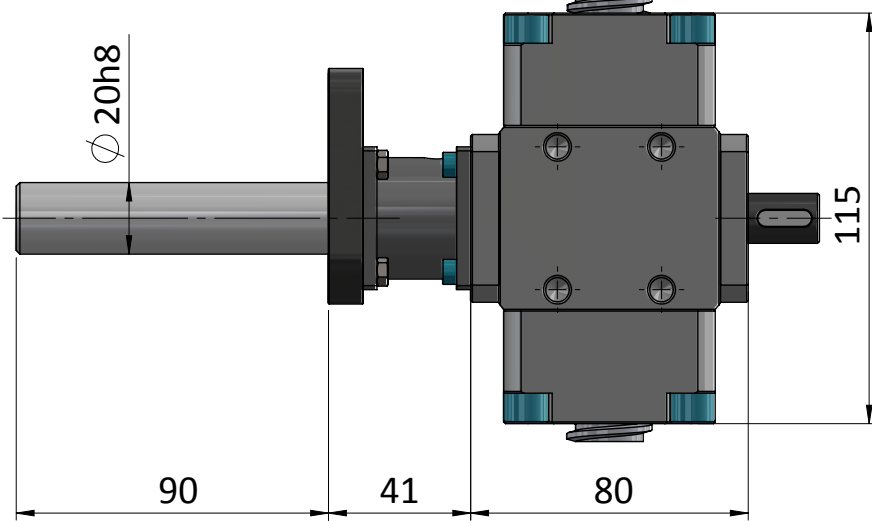
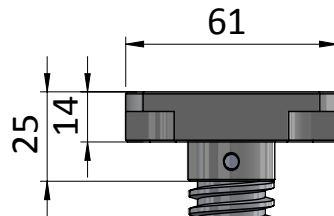
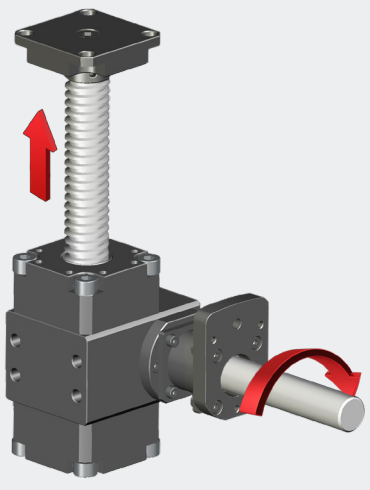
SIZING VERIFICATION - DIMENSIONIERUNGSPRÜFUNG		SUPPORT AND MOUNTING - MONTAGE UND BEFESTIGUNG	
Load (kg) = mass on screw jack Speed (rpm) = required, max 1500 rpm Stroke (mm) = useful linear travel Protection (opt.) = screw shielding <i>Last (kg)</i> = Masse auf dem Spindelhubgetriebe <i>Drehzahl (U/min)</i> = erforderlich, max. 1500 U/min <i>Hub (mm)</i> = nutzbarer lineare Weg <i>Schutz (opt.)</i> = Spindelabdeckung		The unit must be firmly secured to the machine structure using a flat, rigid base (supports not included in the supply). <i>Die Einheit muss fest an der Maschinenstruktur auf einer ebenen, festen Montageplatte (nicht mitgeliefert) montiert werden.</i>	
		Bottom support <i>Untenlager</i>  Plate/bracket under housing for optimal mounting. <i>Platte/Halterung unter dem Gehäuse für optimale Montage.</i>	Lateral support <i>Seitenlager</i>  The side support allows a maximum load of 500 kg. <i>Das Seitenlager erlaubt eine maximale Last von 500 kg.</i>

INSTALLATION - MONTAGE		
 Avoid radial/lateral loads on threaded bar, main cause of failure. <i>Radial- oder Seitenkräfte auf der Spindel vermeiden – Hauptursache für Ausfälle.</i>	 Threaded bar and reducer plane orthogonal; ensure load/bar coaxial, avoid eccentricity. <i>Spindel und Getriebeebe orthogonal ausrichten; Last und Spindel koaxial, Exzentrizität vermeiden.</i>	 Multiple screw jacks: terminals aligned for uniform load; use couplings to compensate misalignments. <i>Mehrfach-Spindelhubgetriebe: Anschlüsse ausgerichtet; zur Ausgleichung von Fluchtfehlern Kupplungen verwenden</i>



MAR60 FL-OP7/EP7

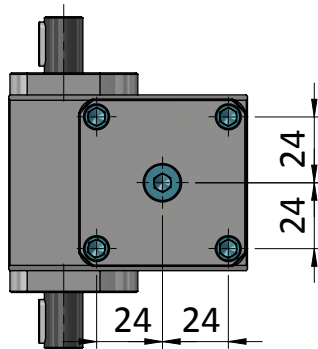
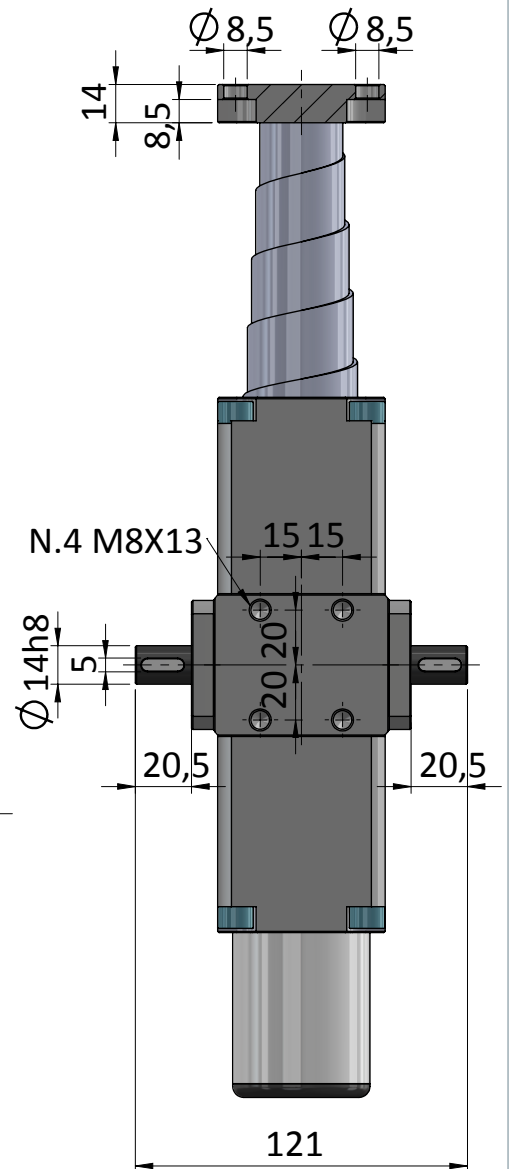
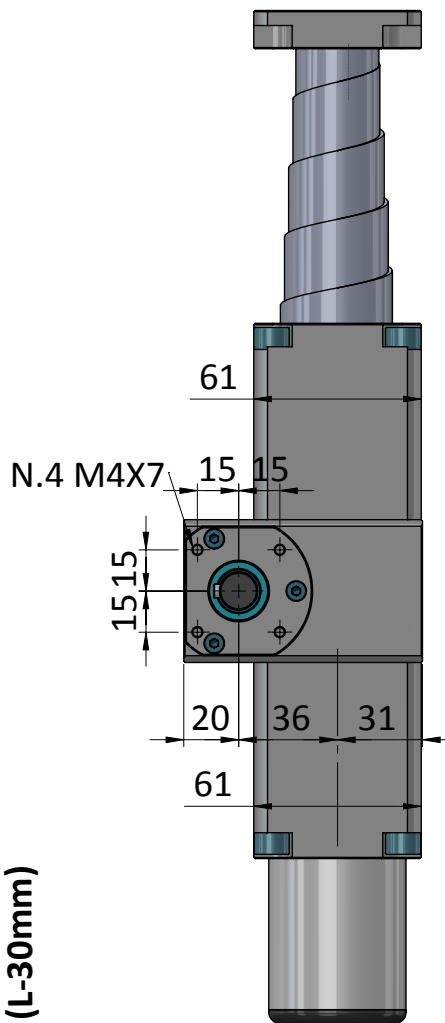
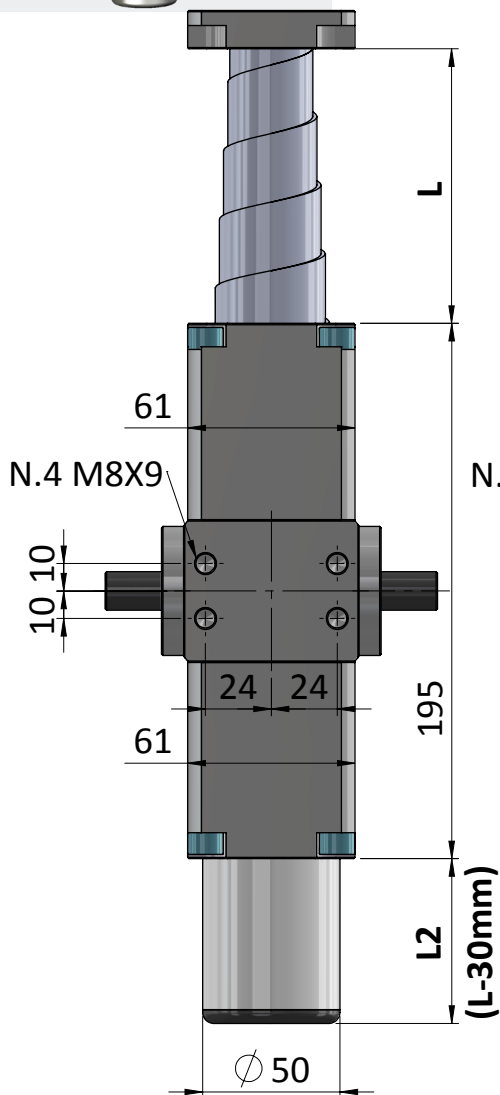
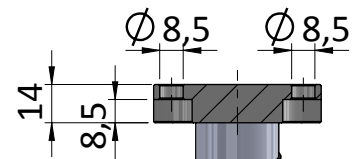
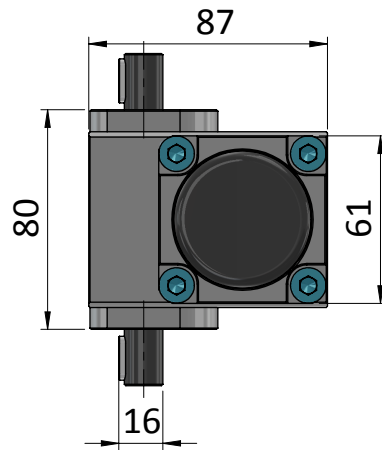
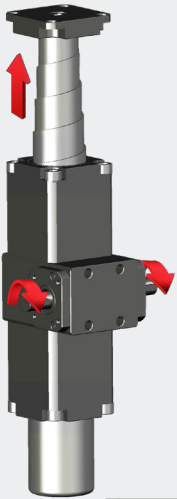
COMPLETE WITH FIXING FLANGE AND EXTENSION SHAFT FOR DISPLAY WITH „OP7“ DIGITAL OR „EP7“ PROGRAMMABLE INDICATOR
KOMPLETT MIT BEFESTIGUNGSFLANSCH UND VERLÄNGERUNGSWELLE FÜR VISUALISIERUNG MIT POSITIONSANZEIGE „OP7“ ODER „EP7“



L = Stroke (mm) - Messweg (mm)

MAR60-PROT

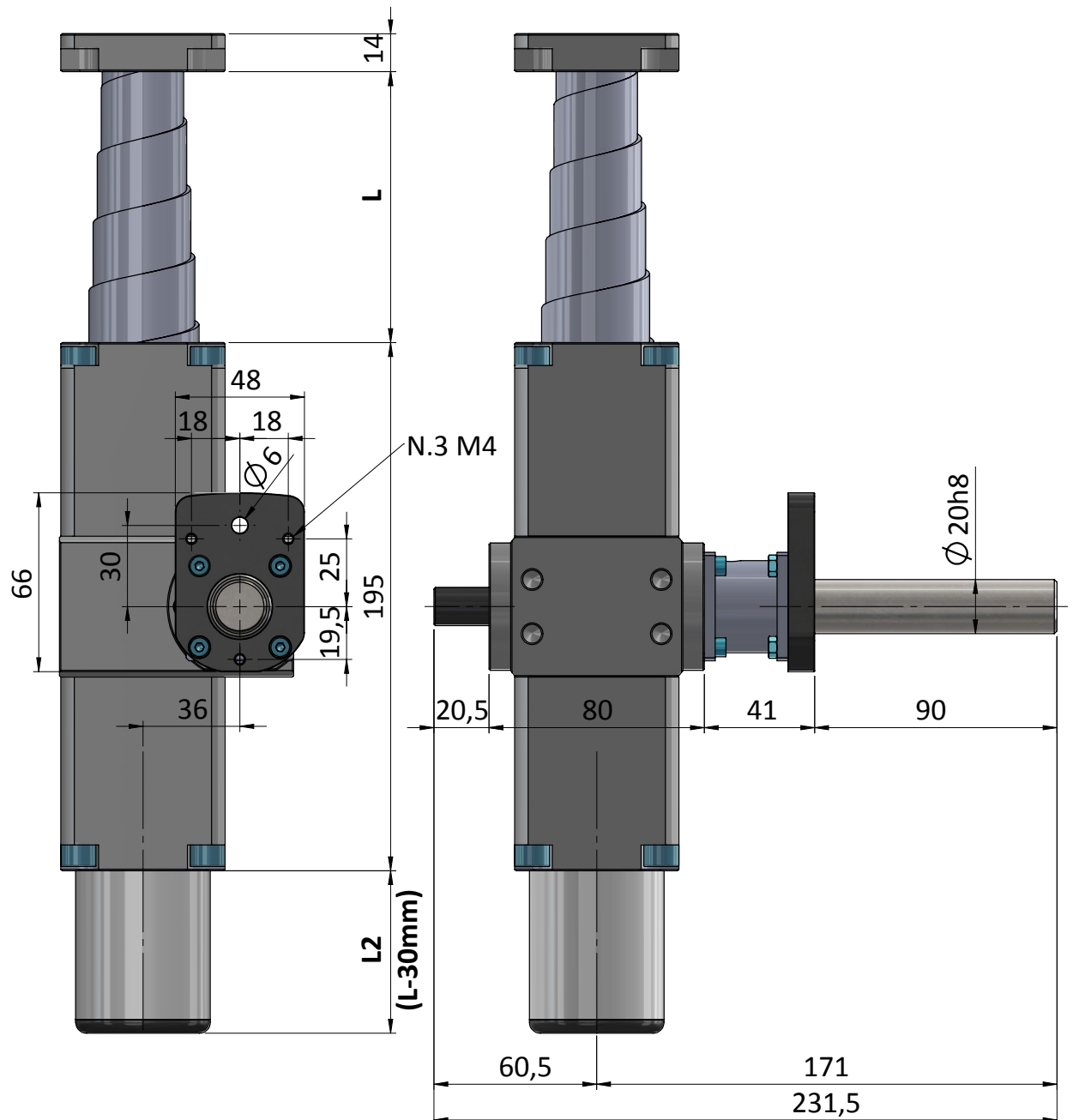
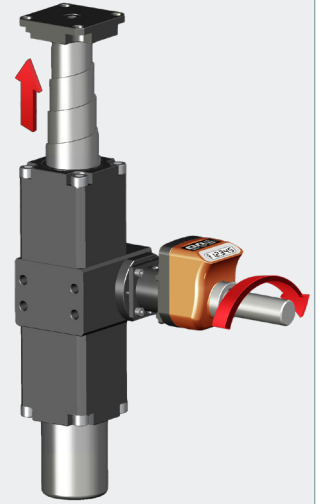
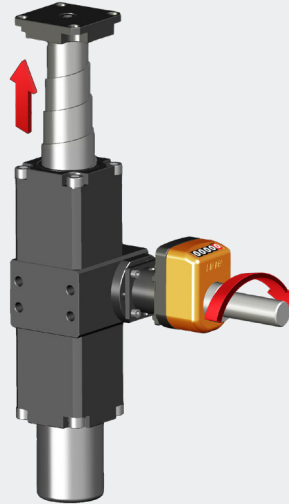
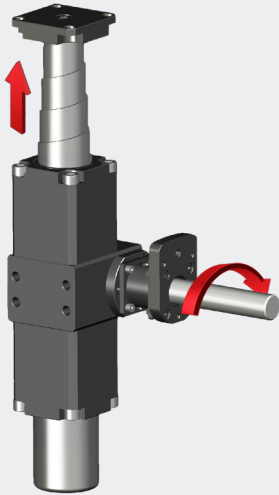
WITH RIGID PROTECTION AND SPIRAL SPRING - MIT TRAPEZSPINDELSCHUTZ UND SPIRALFEDER



L = Stroke (mm) - Messweg (mm)

MAR60-PROT FL-OP7/EP7

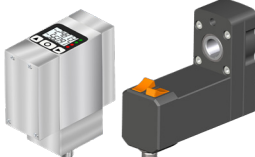
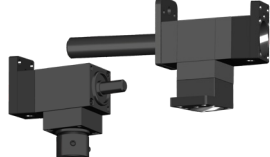
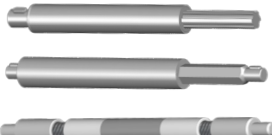
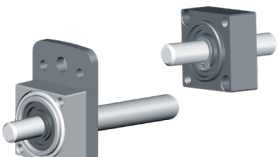
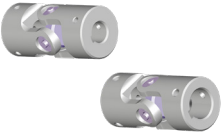
COMPLETE WITH FIXING FLANGE AND EXTENSION SHAFT FOR DISPLAY WITH „OP7“ DIGITAL OR „EP7“ PROGRAMMABLE INDICATOR
KOMPLETT MIT BEFESTIGUNGSFLANSCH UND VERLÄNGERUNGSWELLE FÜR VISUALISIERUNG MIT POSITIONSANZEIGE „OP7“ ODER „EP7“

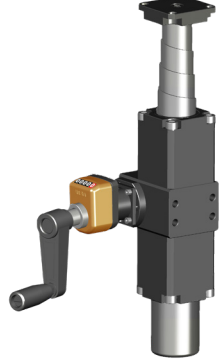
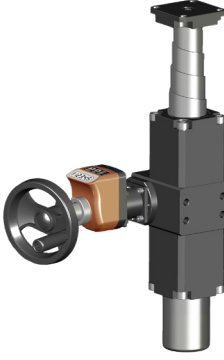
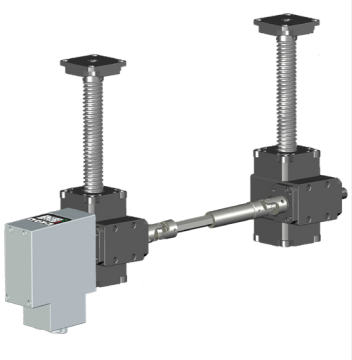
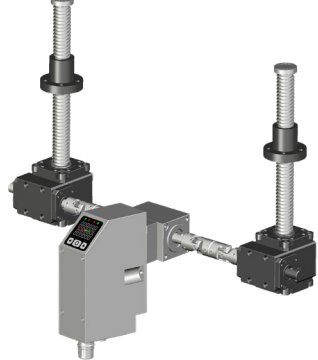
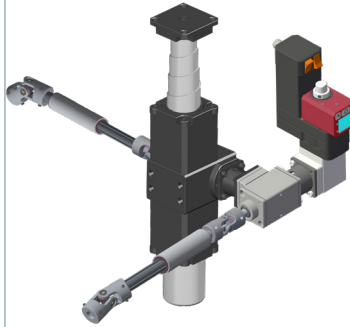
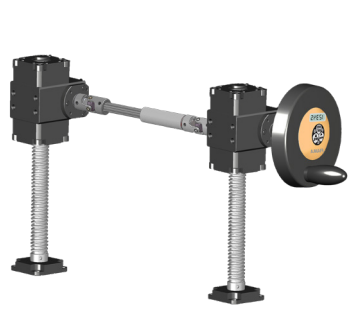
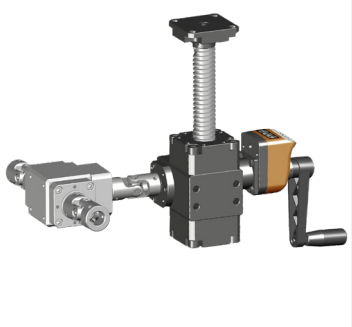


L = Stroke (mm) - Messweg (mm)

LEGEND FOR PERFORMANCE TABLES - LEGENDE FÜR LEISTUNGSTABELLEN		
Tab. 1	=	moving loads as to input torque - <i>Handhabung von Lasten gemäß dem Eingangsrehmoment</i>
Tab. 2	=	moving loads as to trapezoidal screw (with use of guides) - <i>Handhabung von Lasten gemäß der Trapezspindel (mit Führungen)</i>
Tab. 3	=	screw travel speed according to revolution nr. - <i>Spindel-Verfahrgeschwindigkeit gemäß Eingangsrehzahl</i>
i	=	reduction ratio - <i>Übersetzung</i> [/]
T	=	torque - <i>Drehmoment</i> [Nm]
C	=	moving load - <i>Handhabung von Lasten</i> [kg]
s	=	stroke - <i>Messweg</i> [mm]
ω	=	rotation speed - <i>Drehgeschwindigkeit</i> [rpm]
v	=	travel speed - <i>Verfahrgeschwindigkeit</i> [mm/s]

PERFORMANCES TABLE - LEISTUNGSTABELLEN						
i [/]	Tab.1		Tab. 2		Tab. 3	
	T [Nm]	C [kg]	s [mm]	C [kg] (T=27 Nm)	ω [rpm]	v [mm/s]
1/1	1	25,6	100	691,7	250	20,83
	3	76,9	200	691,7	500	41,67
	5	128,1	300	691,7	750	62,50
	10	256,2	500	691,7	1000	83,33
	15	384,3	700	691,7	1250	104,17
	20	512,4	800	648,2	1500	125,00
	25	640,5	900	512,1		
	27	691,7	1000	414,8		
	T [Nm]	C [kg]	s [mm]	C [kg] (T=8 Nm)	ω [rpm]	v [mm/s]
1/5	1	128,1	100	1024,8	250	4,17
	2	256,2	200	1024,8	500	8,33
	3	384,3	300	1024,8	750	12,50
	4	512,4	500	1024,8	1000	16,67
	5	640,5	700	846,6	1250	20,83
	6	768,6	800	648,2	1500	25,00
	7	896,7	900	512,1		
	8	1024,8	1000	414,8		
	T [Nm]	C [kg]	s [mm]	C [kg] (T=6 Nm)	ω [rpm]	v [mm/s]
1/12,5	0,8	205,0	100	1537,2	250	1,67
	1,6	409,9	200	1537,2	500	3,33
	2,4	614,9	300	1537,2	750	5,00
	3,2	819,8	500	1537,2	1000	6,67
	4	1024,8	700	846,6	1250	8,33
	4,8	1229,7	800	648,2	1500	10,00
	5,6	1434,7	900	512,1		
	6	1537,2	1000	414,8		
	T [Nm]	C [kg]	s [mm]	C [kg] (T=4 Nm)	ω [rpm]	v [mm/s]
1/25	0,5	192,1	100	1537,2	250	0,83
	1	384,3	200	1537,2	500	1,67
	1,5	576,4	300	1537,2	750	2,50
	2	768,6	500	1537,2	1000	3,33
	2,5	960,7	700	846,6	1250	4,17
	3	1152,9	800	648,2	1500	5,00
	3,5	1345,0	900	512,1		
	4	1537,2	1000	414,8		

COMBINABLE PARTS - KOMBINIERBARE GERÄTE				
Digital indicators <i>Digitale Positionsanzeigen</i>	Programmable indicators <i>Programmierbare Anzeigen</i>	Servomotors <i>Achsmodule</i>	Gearboxes <i>Winkelgetriebe</i>	Coupling shafts <i>Kupplungswellen</i>
				
Coupling supports <i>Lagerböcke</i>	Coupling joints <i>Kardangelenke</i>	Handwheels <i>Handräder</i>	Handles <i>Umlegegriffe</i>	Block flanges <i>Klemmflanschen</i>
				

COUPLINGS EXAMPLES - KOMBINATIONSBEISPIELE			
			
			

PART NR. CONFIGURATION - BESTELLMUSTER	MAR60	1/1	200	PROT-INF-IN	PROT-SUP-IN	FL-OP7
REDUCTION RATIOS - ÜBERSETZUNGEN 1/1 - 1/2 - 1/4 - 1/7,5 - 1/10 - 1/15 - 1/20 - 1/30 - 1/40						
STROKE LENGTH - MESSWEG 50 - 100 - 200 - 300 - 400 - 650 - 700 - 1000						
LOWER PROTECTION - UNTERE SCHUTZABDECKUNG optional - auf Wunsch PROT-INF-IN (inox AISI 303 - Edelstahl AISI 303)						
UPPER PROTECTION - OBERE SCHUTZABDECKUNG optional - auf Wunsch PROT-SUP-IN (inox AISI 301 - Edelstahl AISI 301)						
COUPLING FLANGE - KUPPLUNGSFLANSCH optional - auf Wunsch FL-OP7/EP7						
INDICATORS - POSITIONSANZEIGEN optional - auf Wunsch OP7 - EP7 (order separately - separat bestellen)						

for the selection please see datasheets, which can be downloaded from our web-site www.fiamma.it in section "Indicators ..."
für die Auswahl die Datenblätter von unsere Web-Seite www.fiamma.it herunterladen im Abschnitt "Positionsanzeigen ..."