

Hydraulik- Zylinder

Baureihe ZEN

HYDRAULIK-ZYLINDER  GMBH

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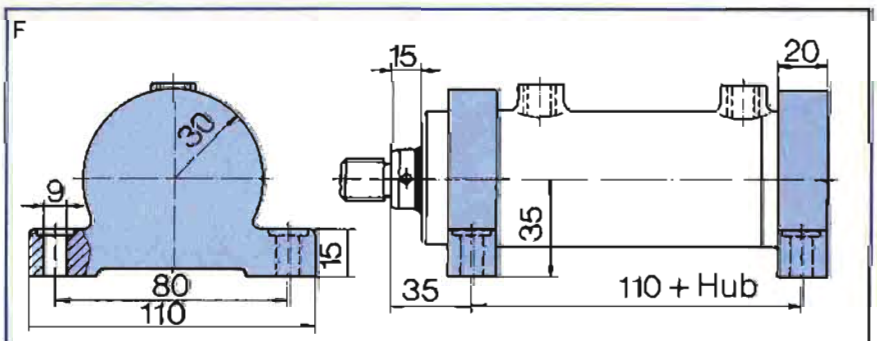
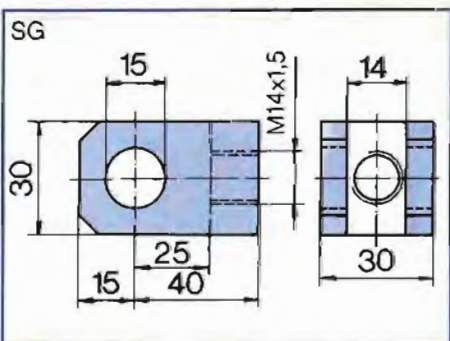
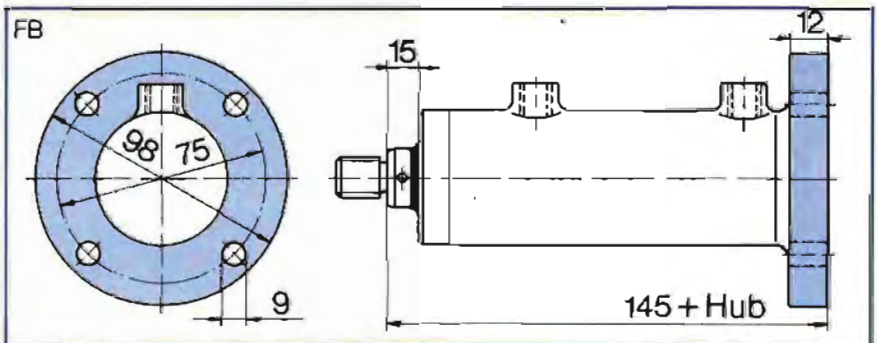
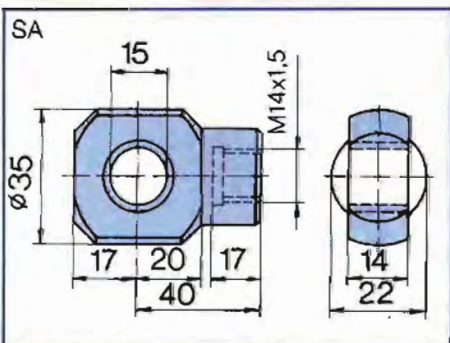
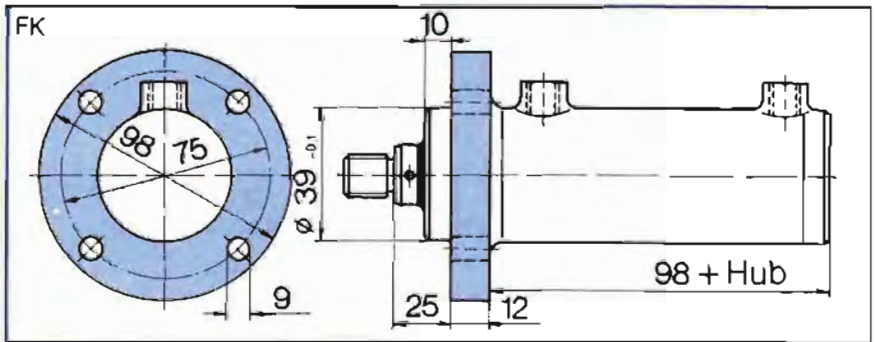
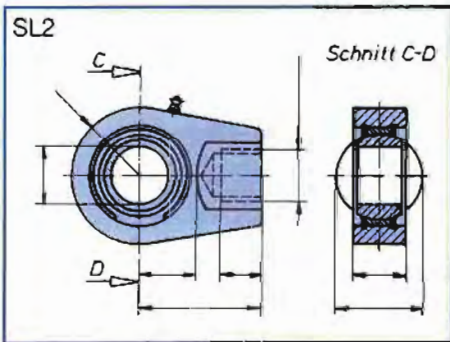
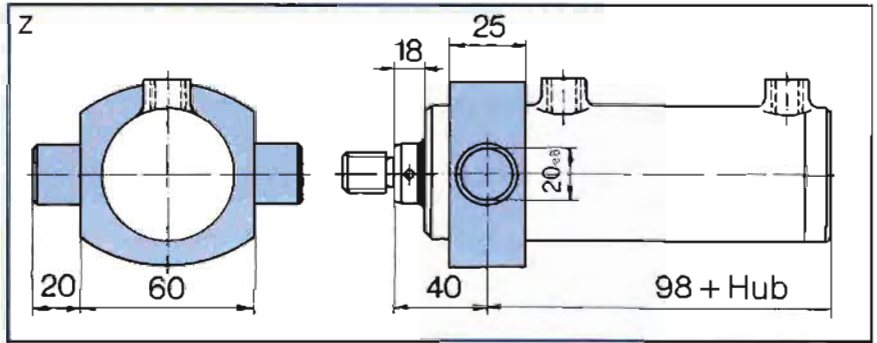
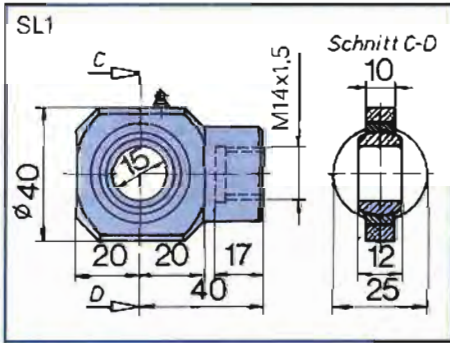
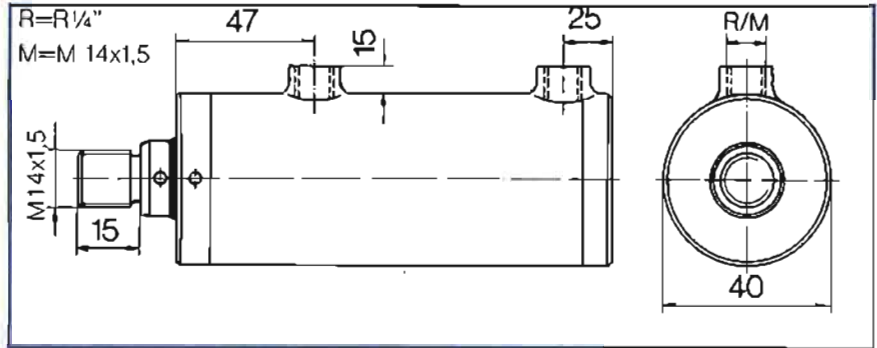
Baureihen-Kurzbeschreibung ZEN

Betriebsdruck	$p_b \leq 210 \text{ bar}$
Betriebstemperatur	$-30 \leq t_b \leq 80^\circ \text{ C}$
Kolbengeschwindigkeit	$v_{\text{max.}} = 0,3 \text{ m/s}$
Wirkungsweise	doppeltwirkend ohne Dämpfung
Kolbenstange	CK 45 hartverchromt 25-30 μm – andere Werkstoffe auf Anfrage –
Entlüftung	ohne
Anschlüsse	Whitworth-Rohrgewinde und metrisches Gewinde. Bei Abweichung vom katalogmäßigen Anschluß die gewünschte Größe im Bestellschlüssel angeben: Beispiel: ZEN 50 x 35 x 600 Hub/L1-SL1-R¼"
Vorteil	einfache Bauweise – daher preiswert, leichte Montage
Einsatzgebiete	Mobilhydraulik, allgemeiner Maschinenbau, Hebegeräte, Baumaschinen, Förderanlagen etc. Nicht geeignet für den Einsatz in Stanzen und Pressen sowie für Stick-Slip-armen Lauf.
Sonderausführung	z. B. Niro-Kolbenstange, NPT-Anschlüsse, reibungsarme Dichtungen, abweichende Befestigungsarten und Einbaumaße, höherer Betriebsdruck oder höhere Betriebstemperatur, Hubverstellung, beidseits austretende Kolbenstange für Gleichlauf, etc. Bei Bedarf ist mit der Technik Rücksprache zu halten.

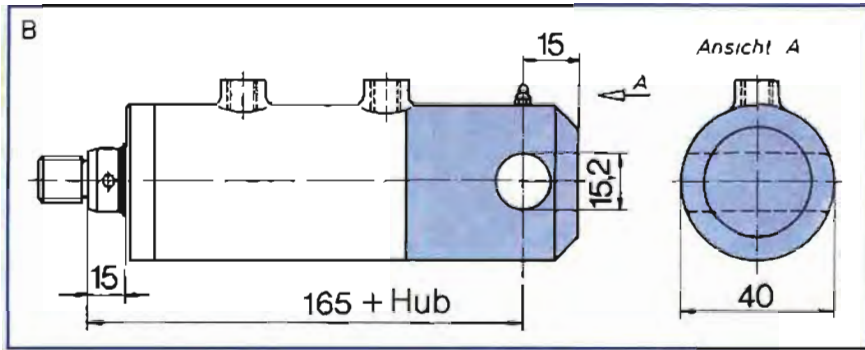
Baureihe ZEN

210 bar

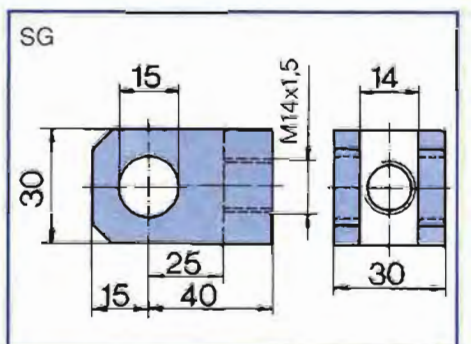
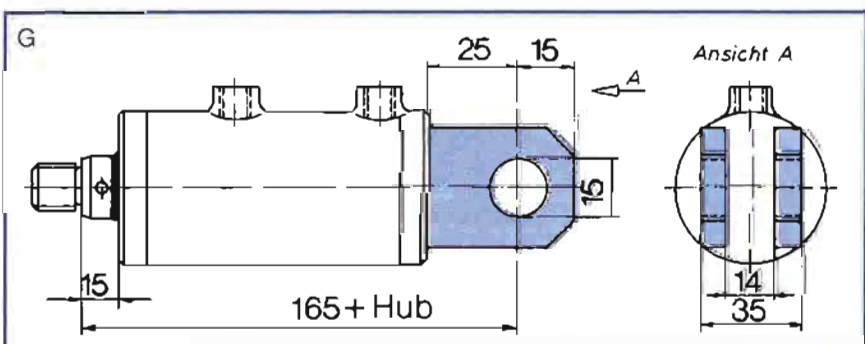
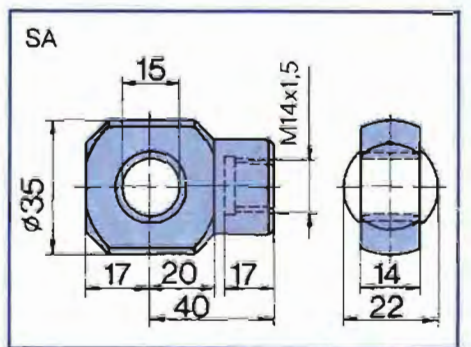
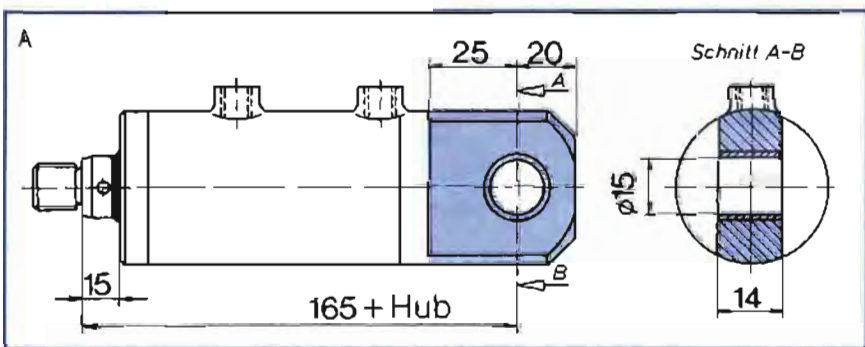
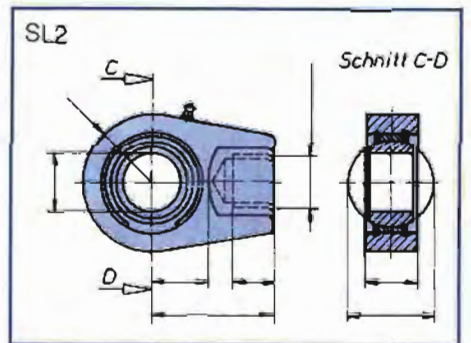
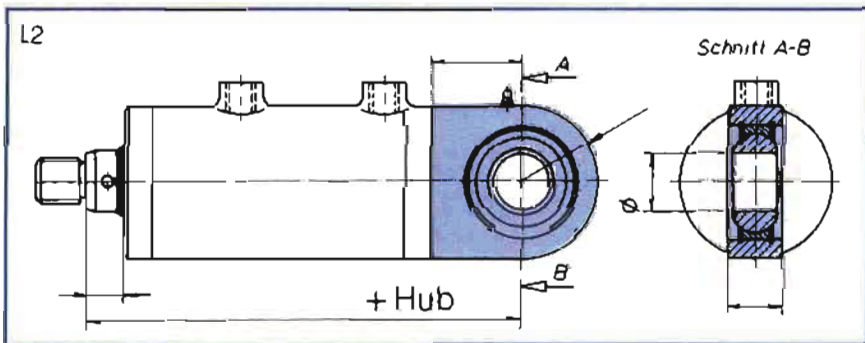
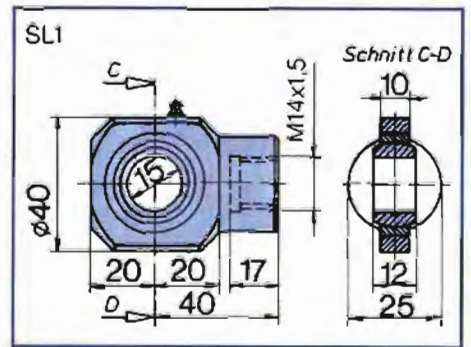
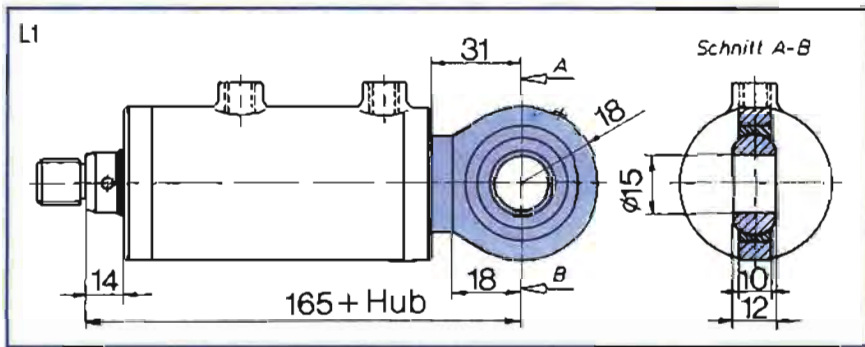
Kolben \varnothing	30	
Stangen \varnothing	15	18
$A_z[\text{cm}^2]$	5,3	4,52
$A_D[\text{cm}^2]$	7,07	$F_{\text{max}}[\text{KN}]$ 14,8



Bestellbeispiel: Hydro-Zylinder mit Flansch am Kopf und Gabelkopf an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 30x18x200 Hub/FK-SG-R



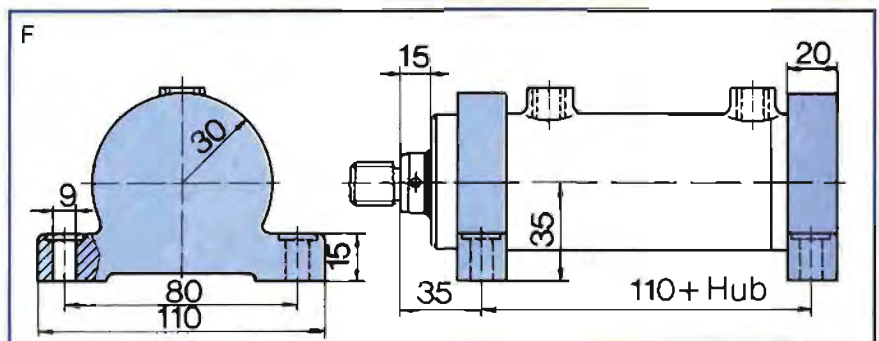
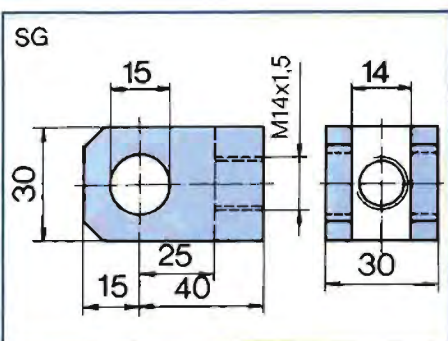
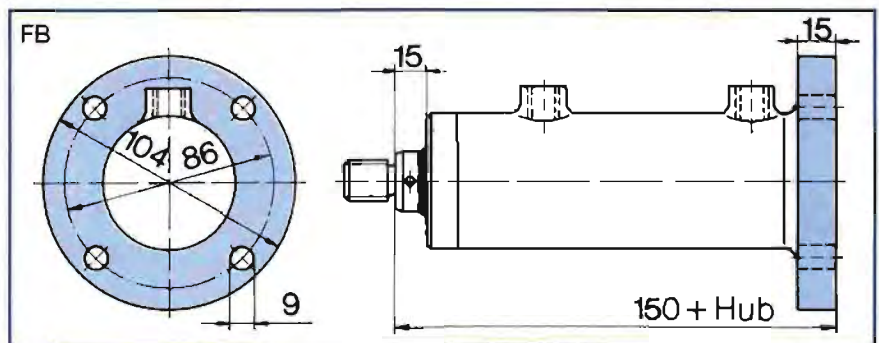
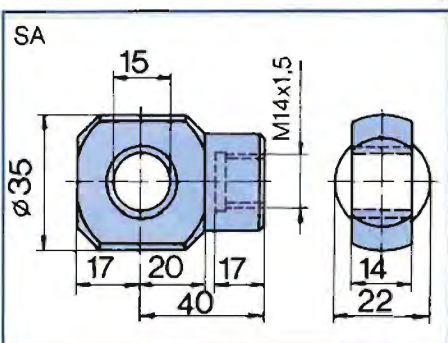
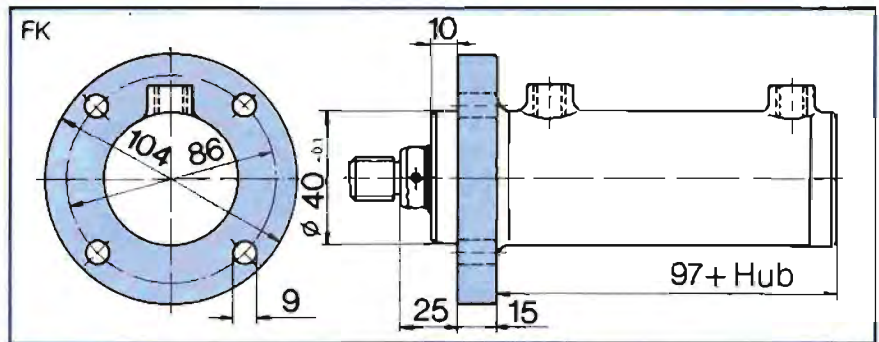
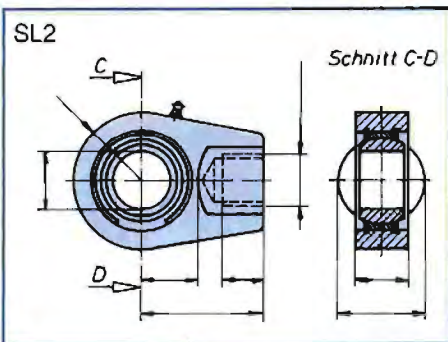
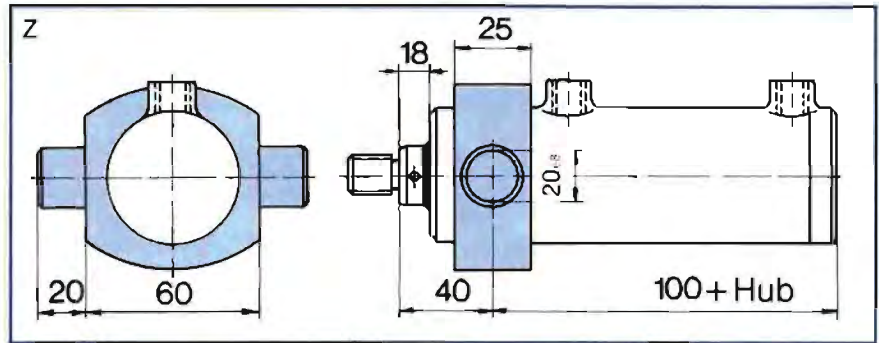
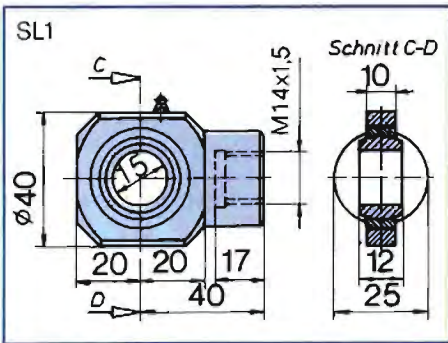
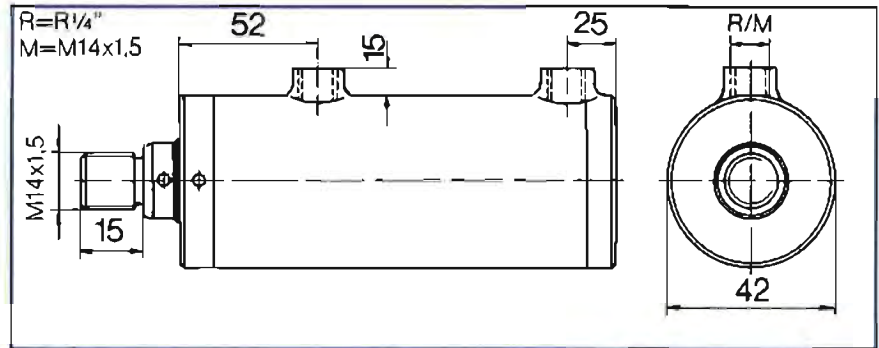
Kolben \varnothing 30		
Stangen \varnothing	15	18
A_2 [cm ²]	5,3	4,52
A_D [cm ²]	7,07	F_{max} [KN] 14,8



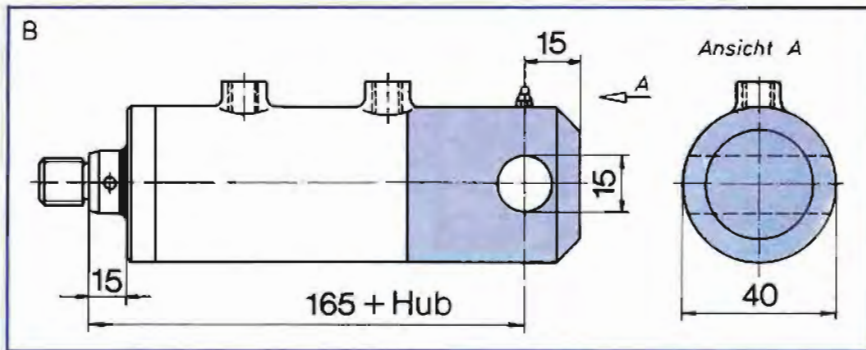
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210 bar

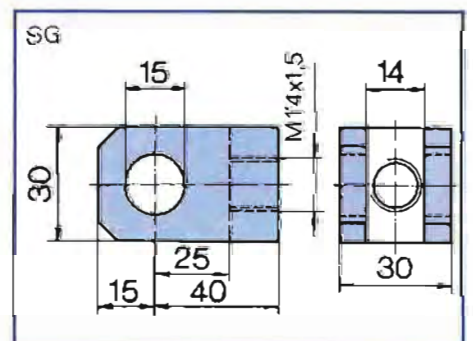
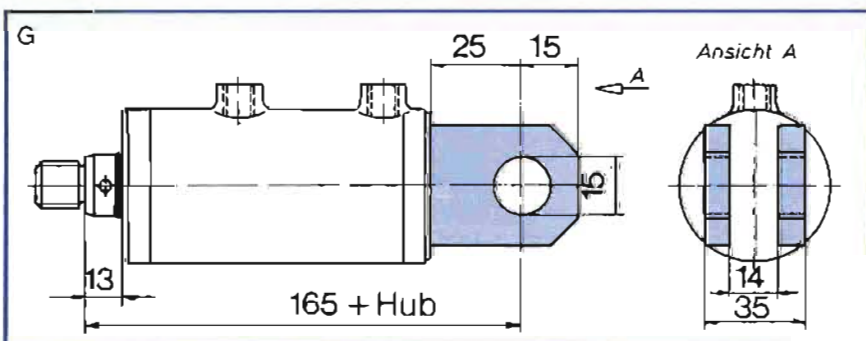
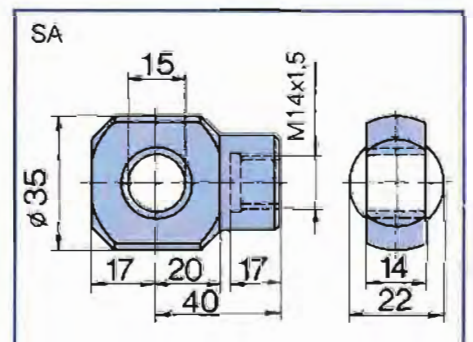
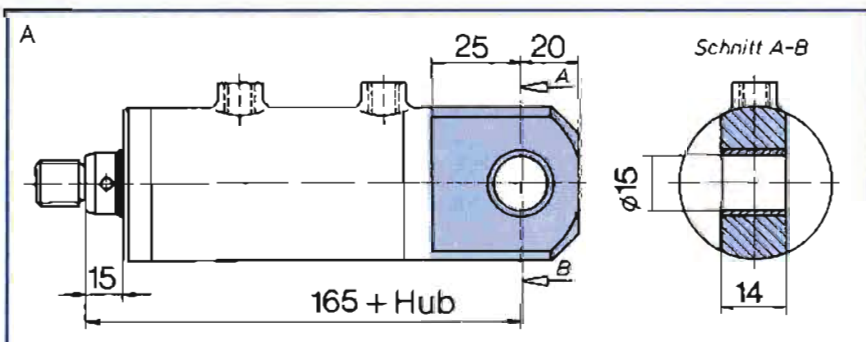
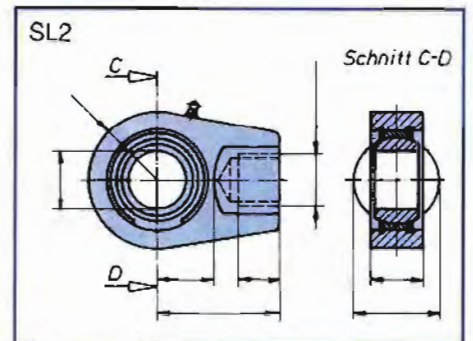
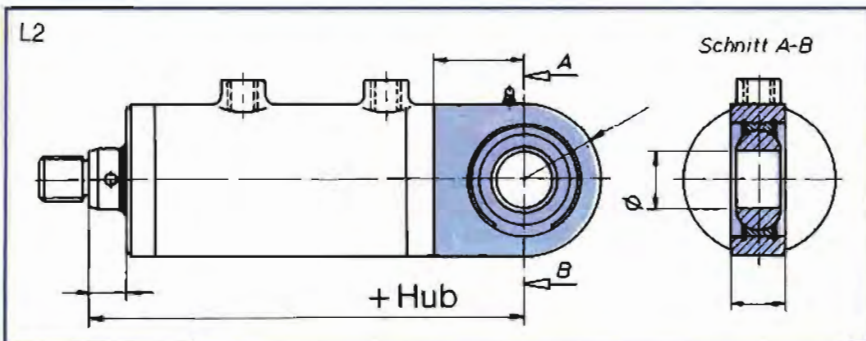
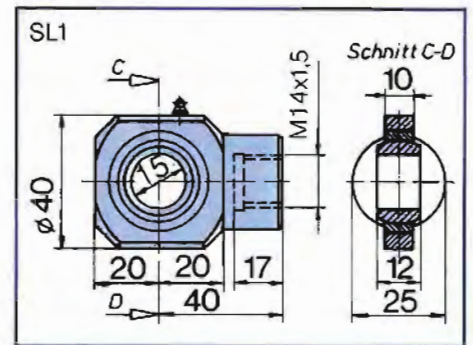
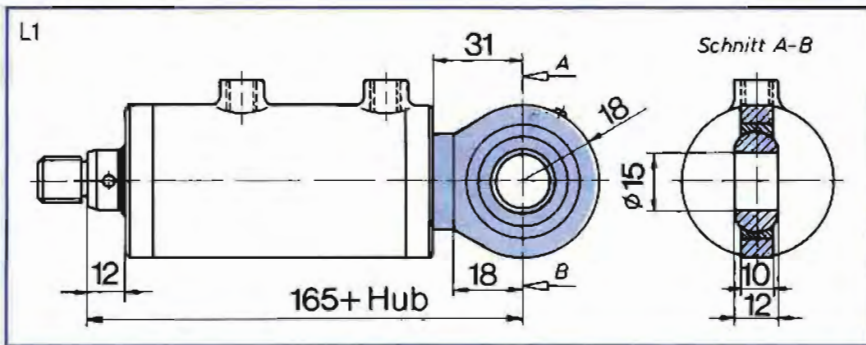
Kolben \varnothing 32	
Stangen \varnothing 20	
A_z [cm ²]	4,9
A_D [cm ²]	8,04
F_{max} [kN]	16,9



Bestellbeispiel: Hydro-Zylinder mit Fußbefestigung und Gelenkauge an der Kolbenstange:
ZEN 32x20x430 Hub/F-SL1-R



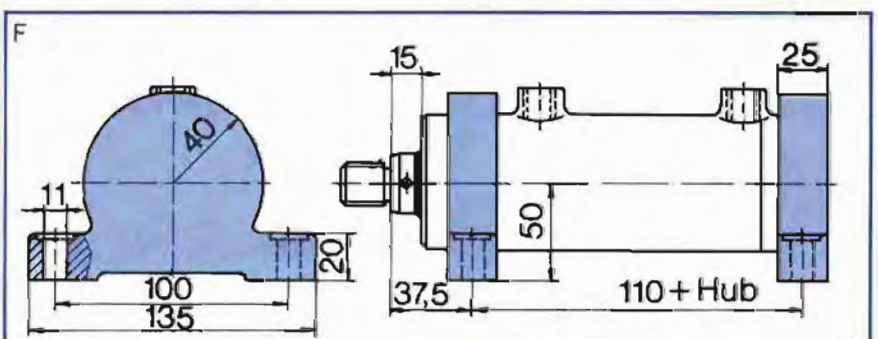
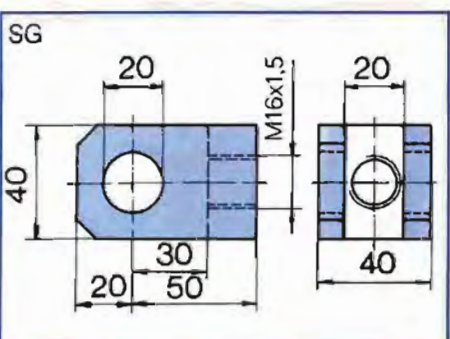
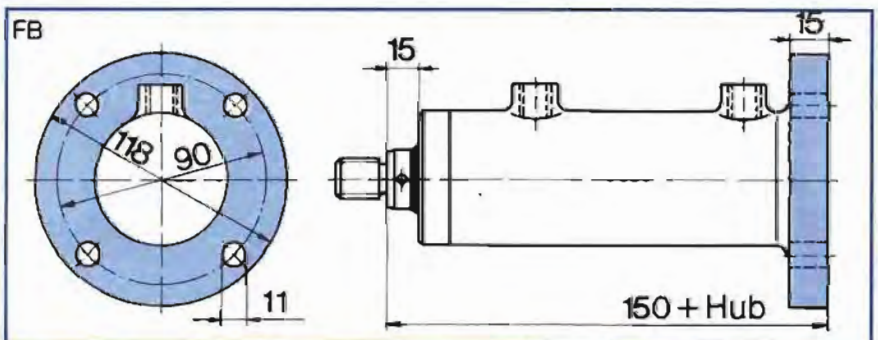
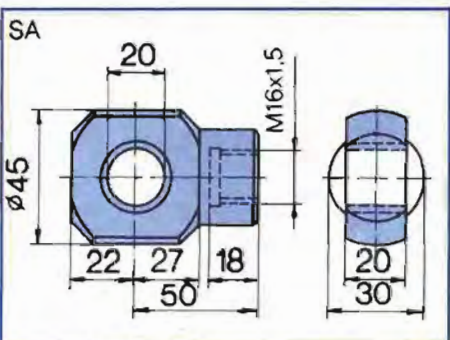
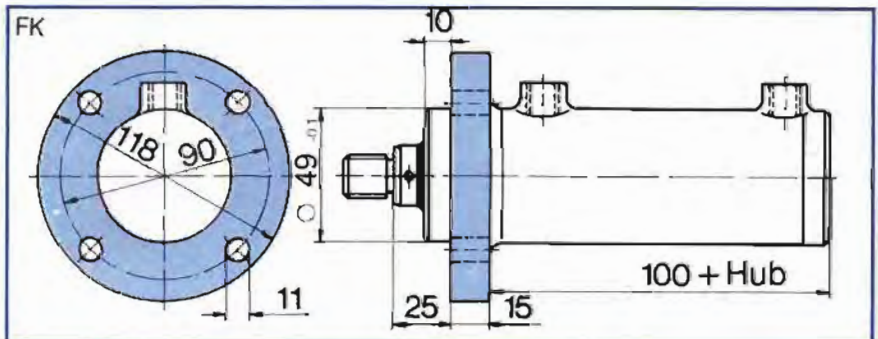
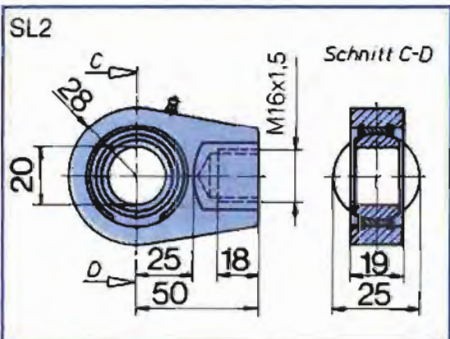
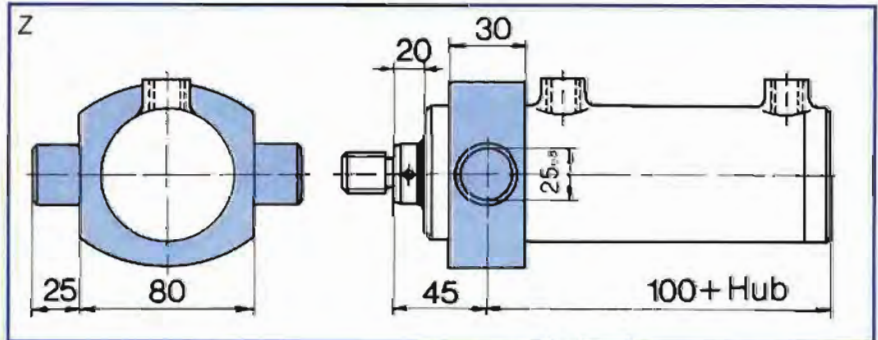
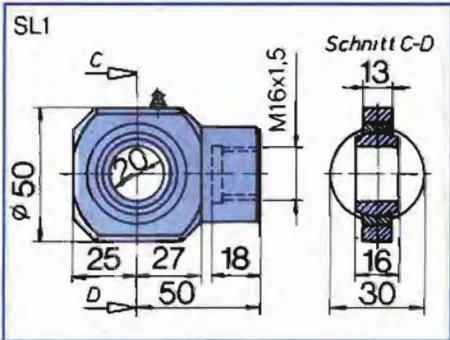
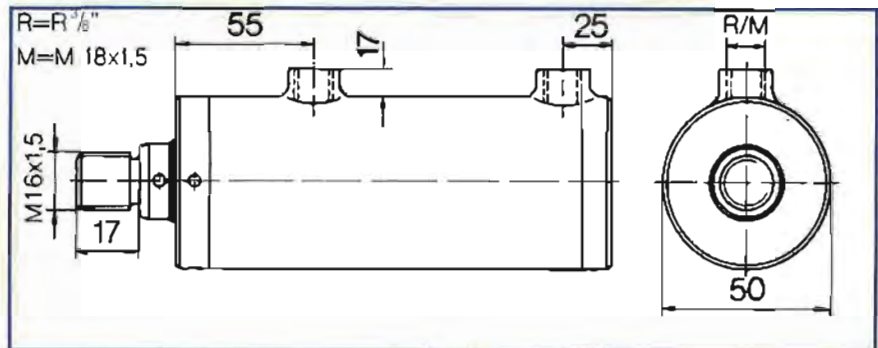
Kolben ϕ	32	
Stangen ϕ	20	
A_z [cm ²]	4,9	
A_D [cm ²]	8,04	F_{max} [kN] 16,9



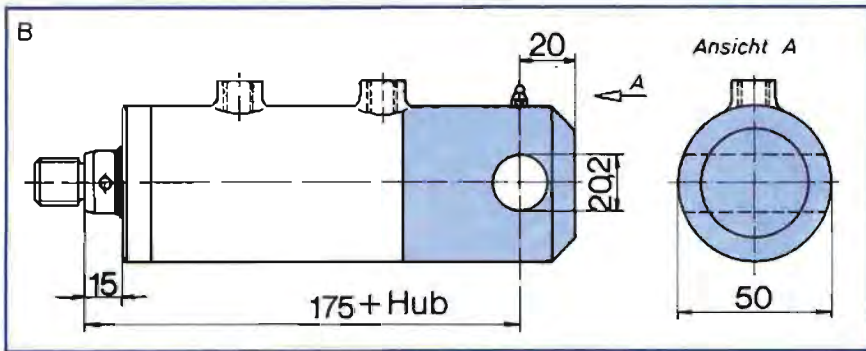
Baureihe ZEN

210 bar

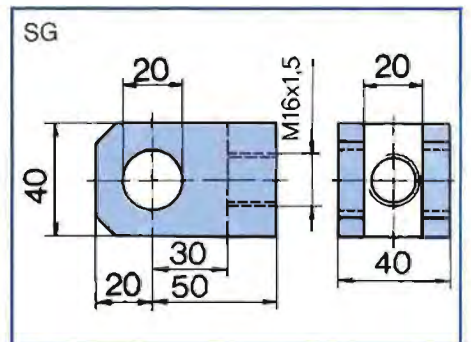
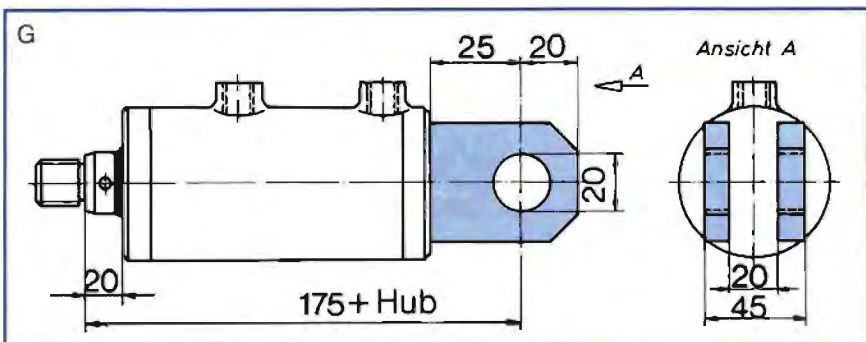
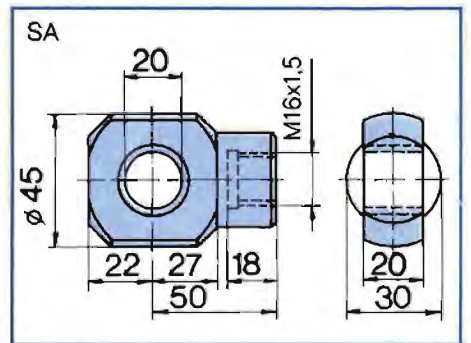
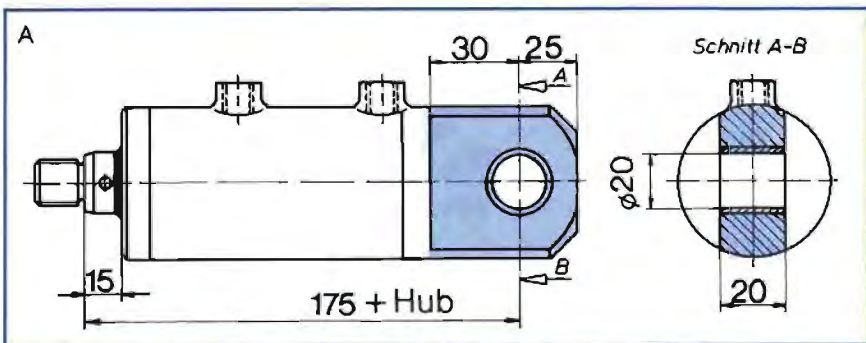
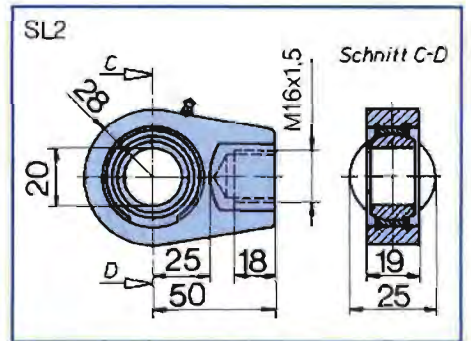
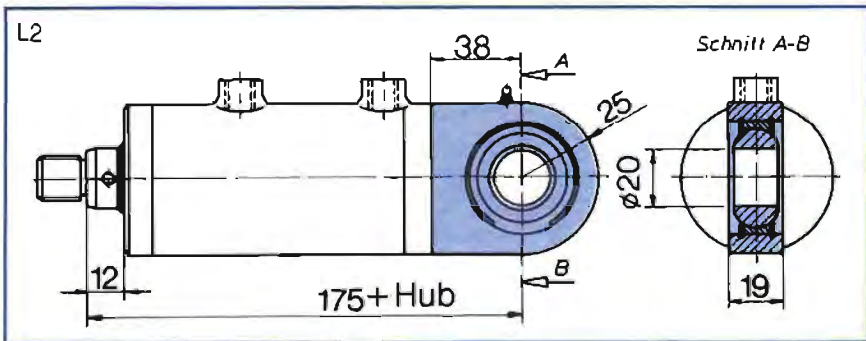
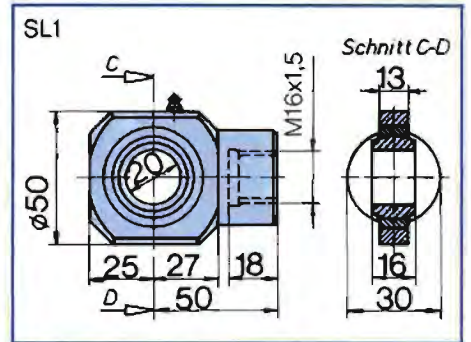
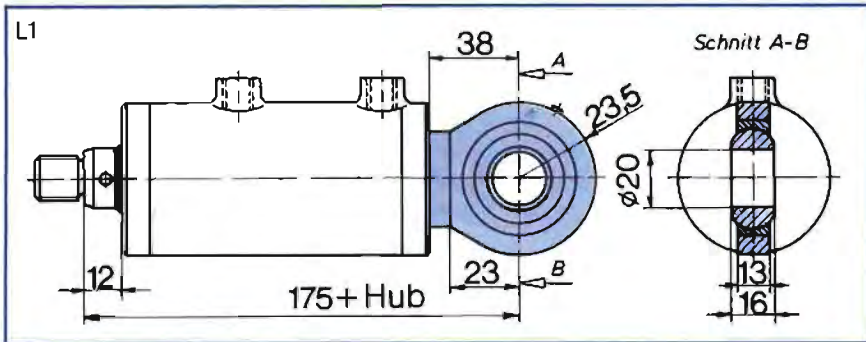
Kolben \varnothing 40	
Stangen \varnothing 20	25
A_2 [cm ²]	9,4
A_D [cm ²]	12,56
F_{max} [KN]	26,4



Bestellbeispiel: Hydro-Zylinder mit Gelenkauge an beiden Seiten, Anschlußgewinde in Zollabmessung:
ZEN 40x20x225 Hub / L2-SL2-R



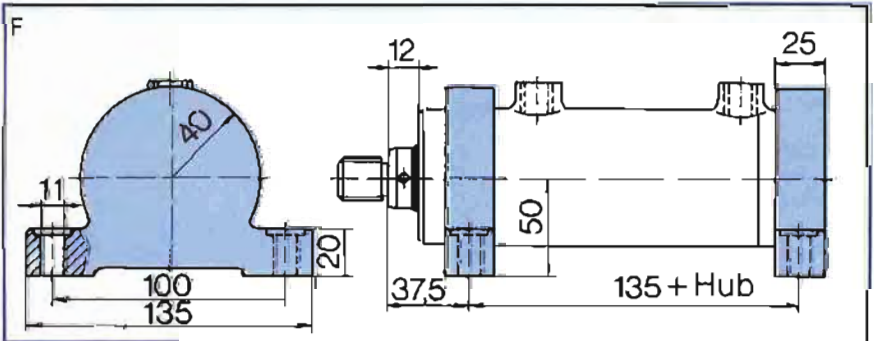
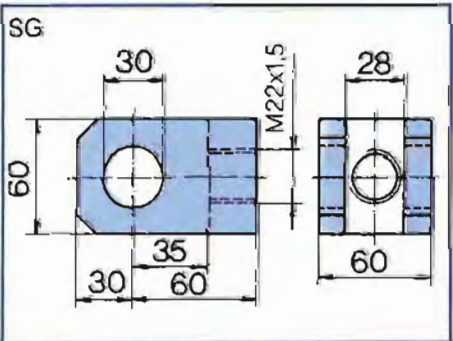
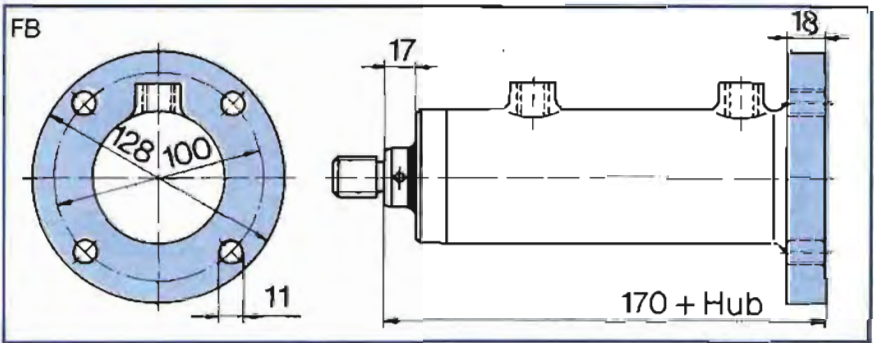
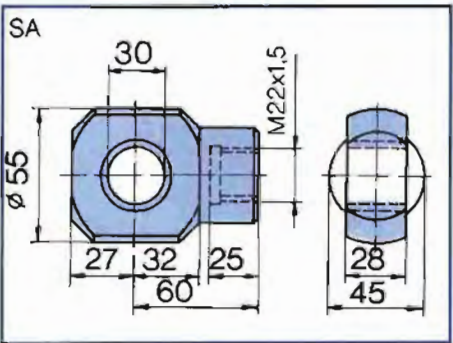
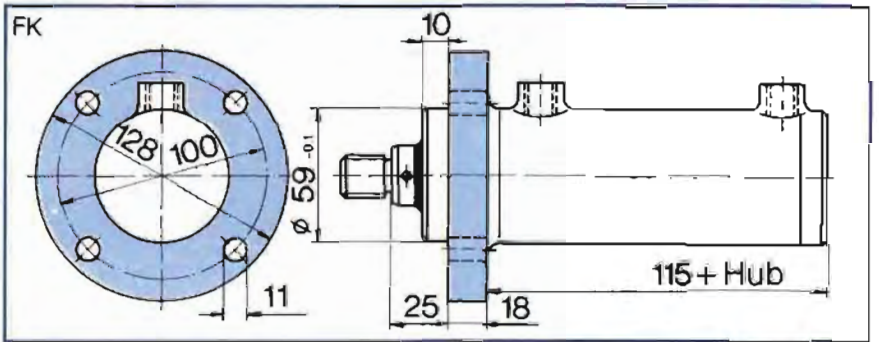
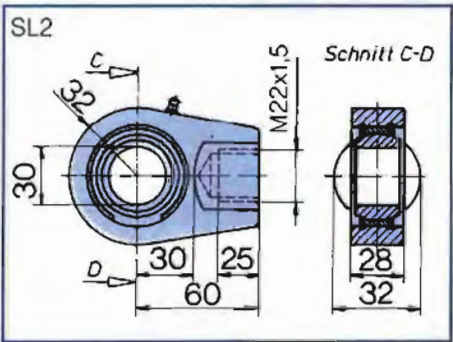
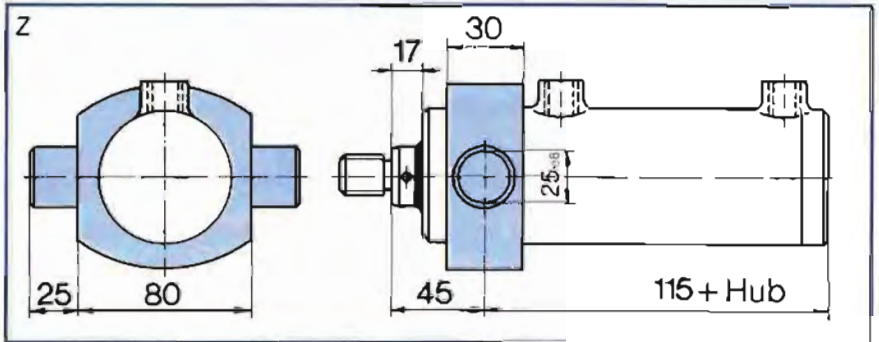
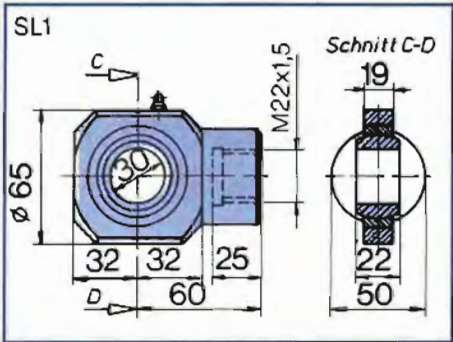
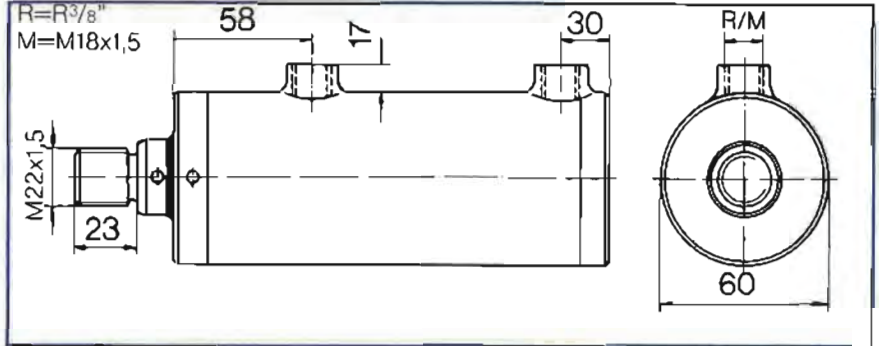
Kolben ϕ 40		
Stangen ϕ	20	25
A_2 [cm ²]	9,4	7,66
A_D [cm ²]	12,56	F_{max} [kN] 26,4



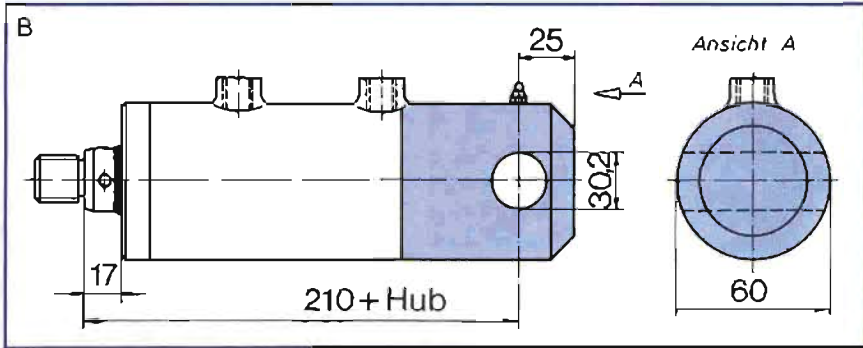
Baureihe ZEN

210 bar

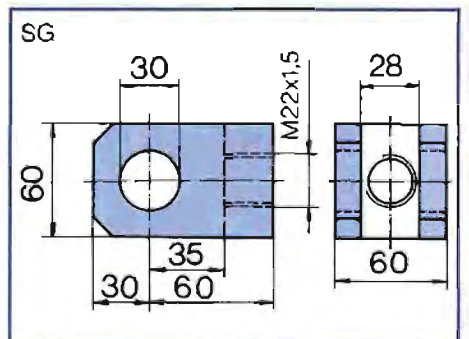
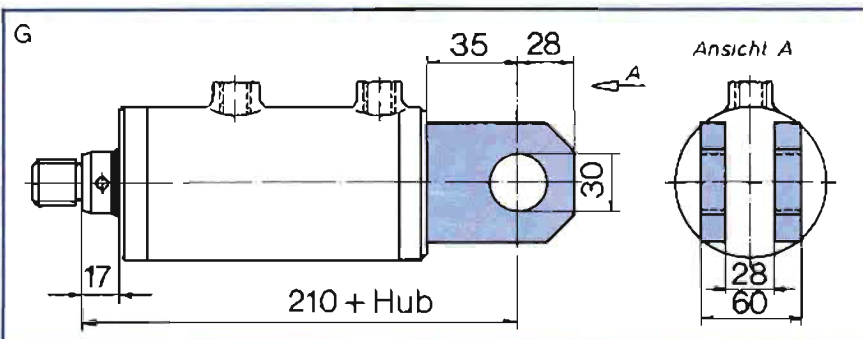
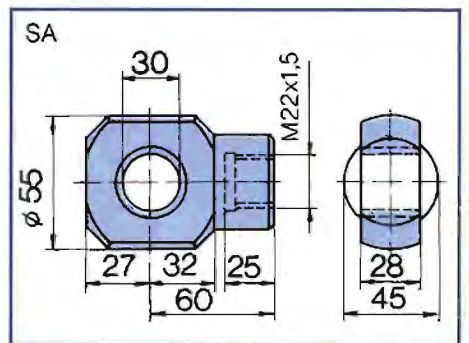
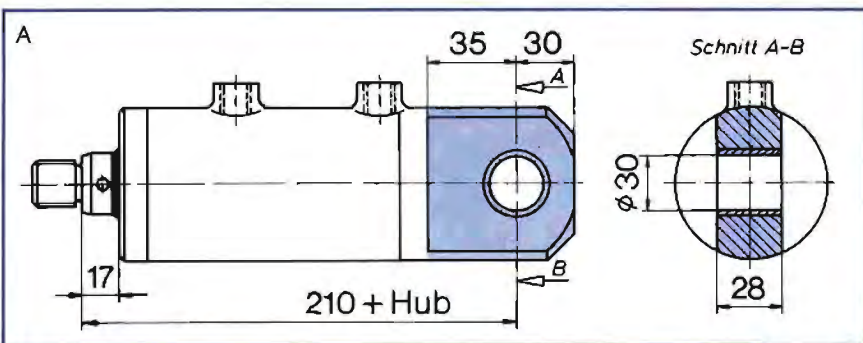
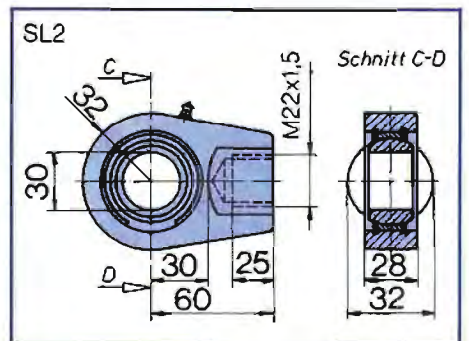
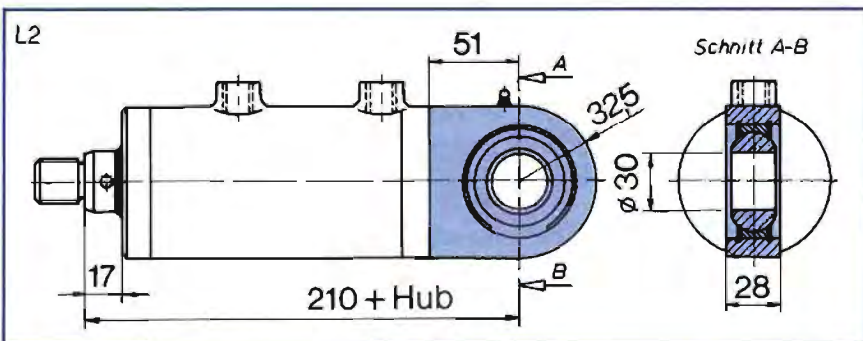
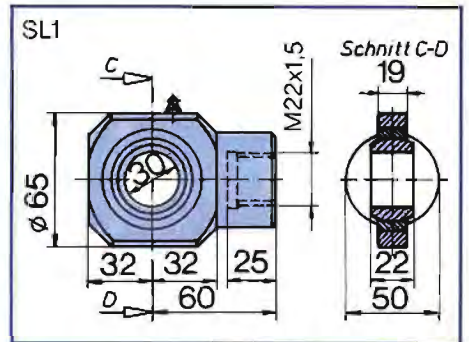
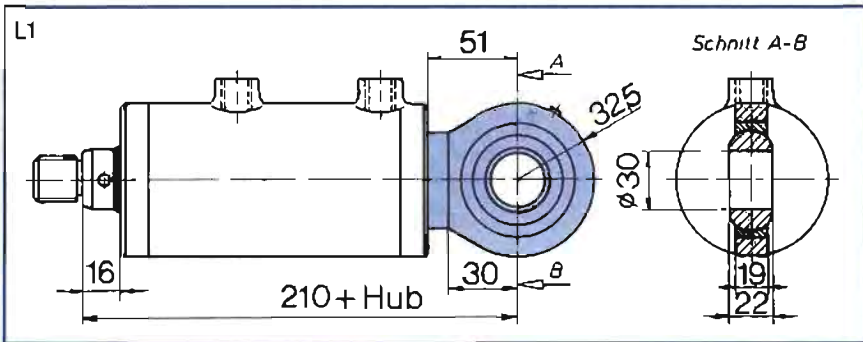
Kolben \varnothing 50	
Stangen \varnothing	30 35
A_z [cm ²]	12,5 10
A_D [cm ²]	19,6 F_{max} [kN] 41,2



Bestellbeispiel: Hydro-Zylinder mit Bohrung am Boden und Schwenkauge an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 50 x 35 x 155 Hub / B-SG-R



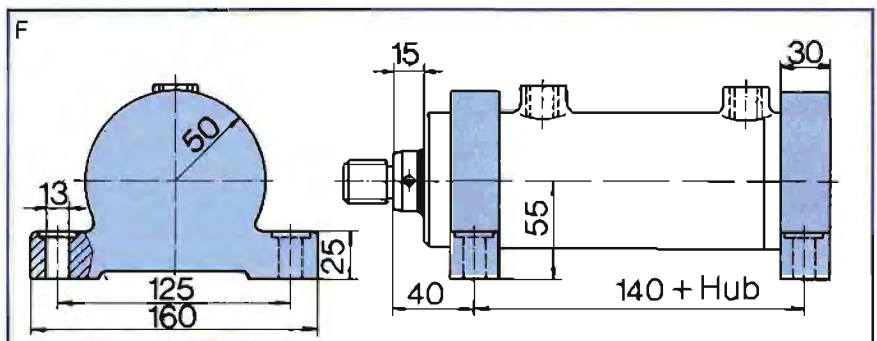
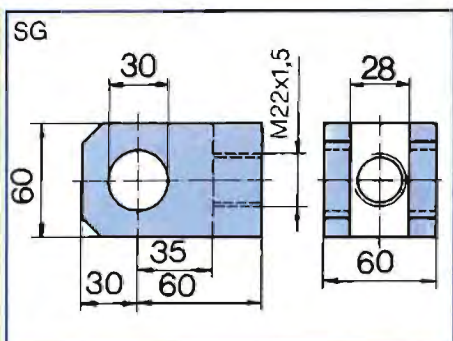
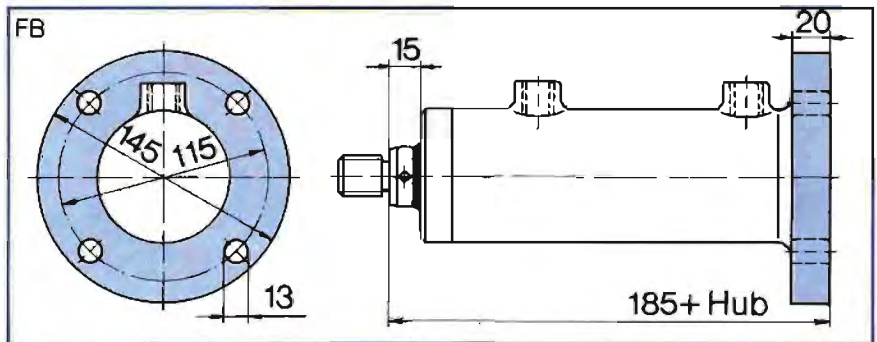
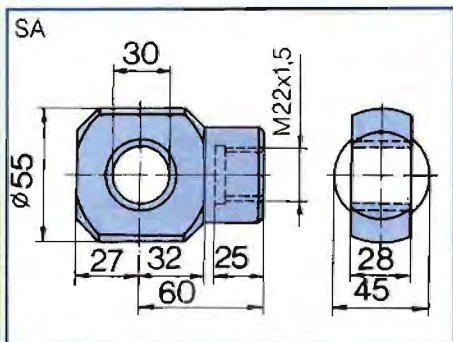
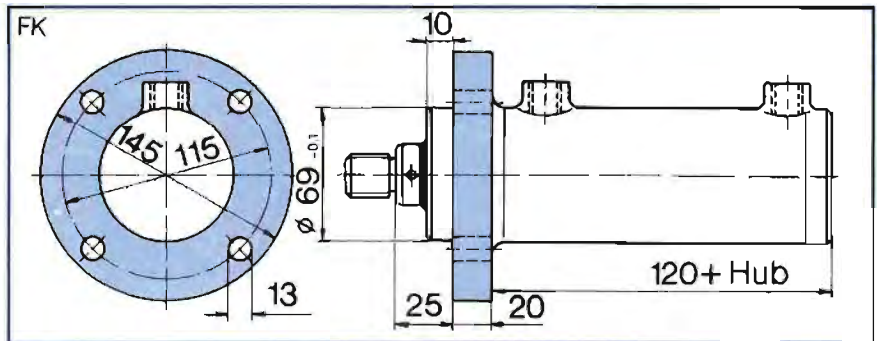
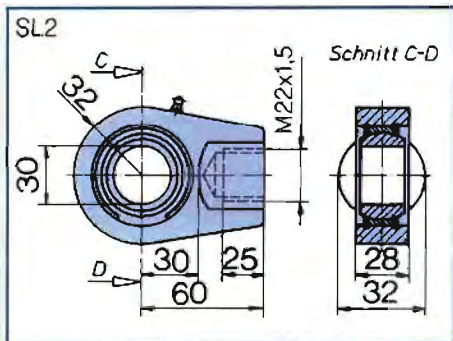
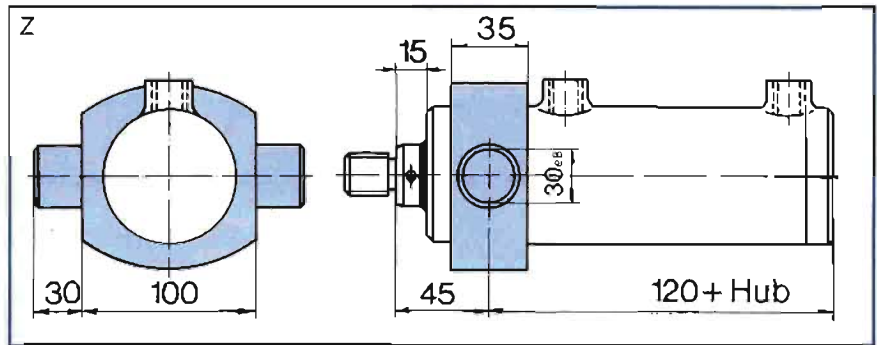
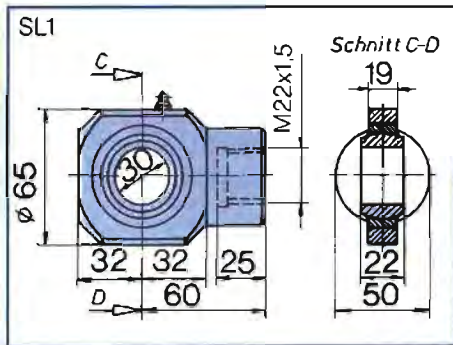
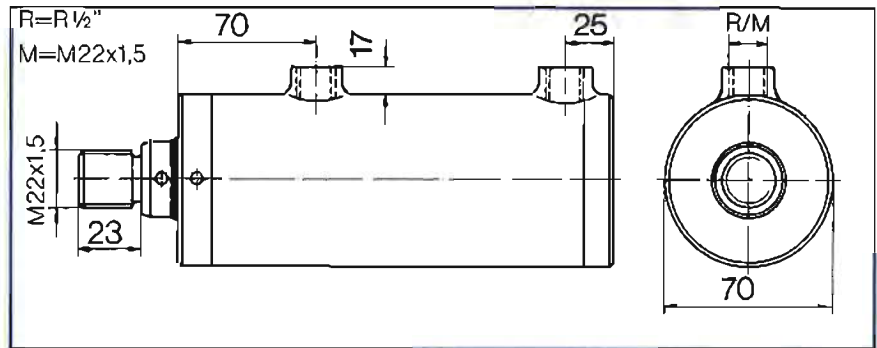
Kolben ϕ 50		
Stangen ϕ	30	35
A_z [cm ²]	12,5	10
A_D [cm ²]	19,6	F_{max} [kN] 41,2



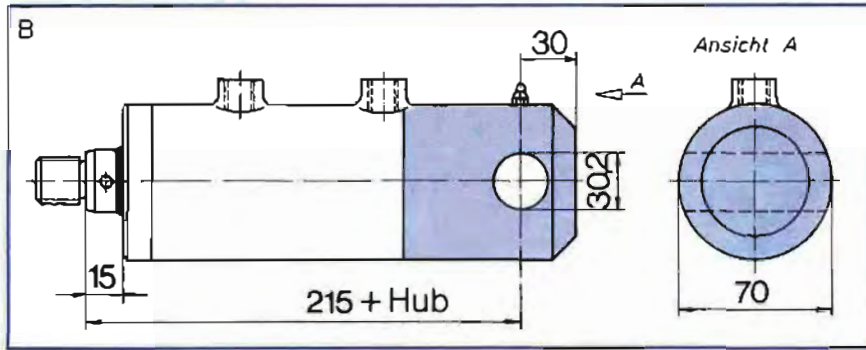
Baureihe ZEN

210 bar

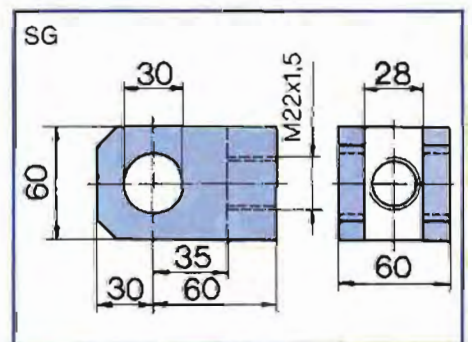
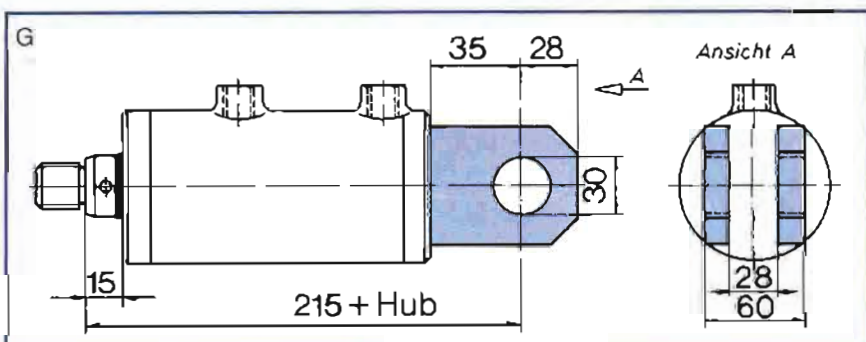
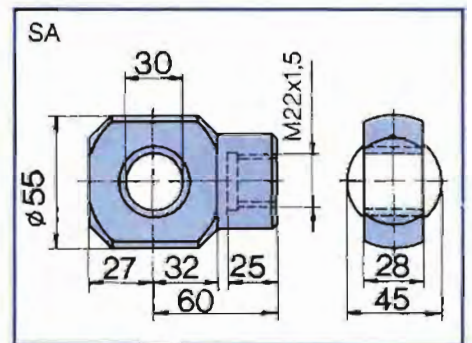
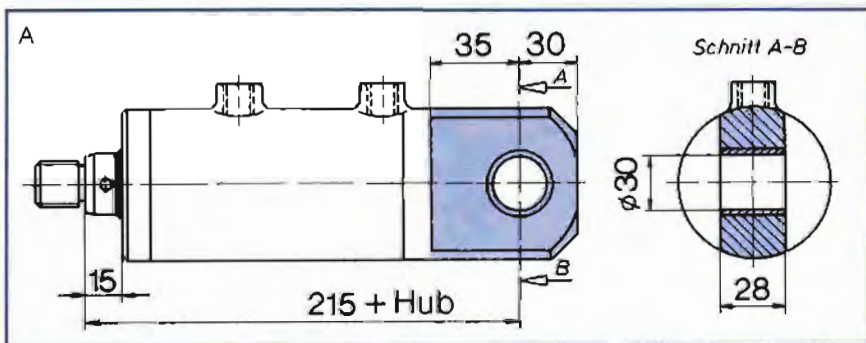
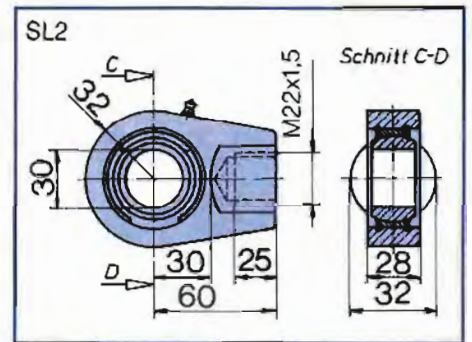
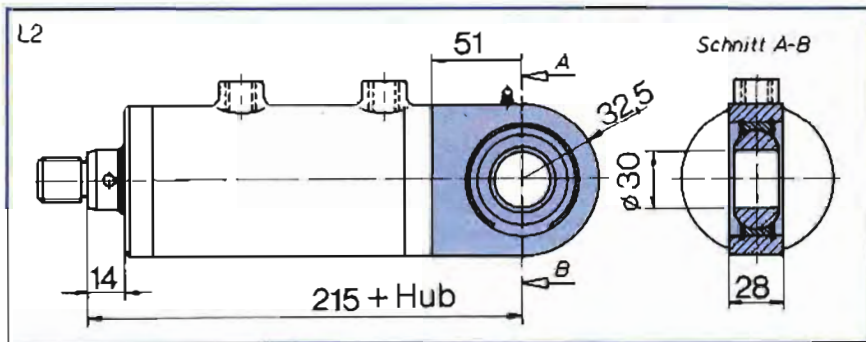
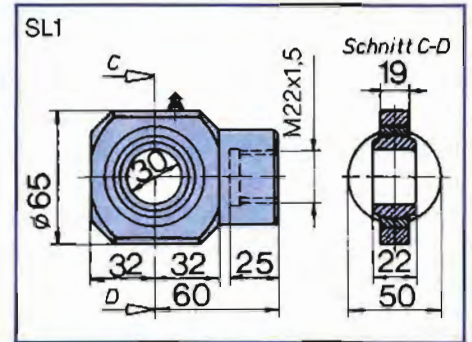
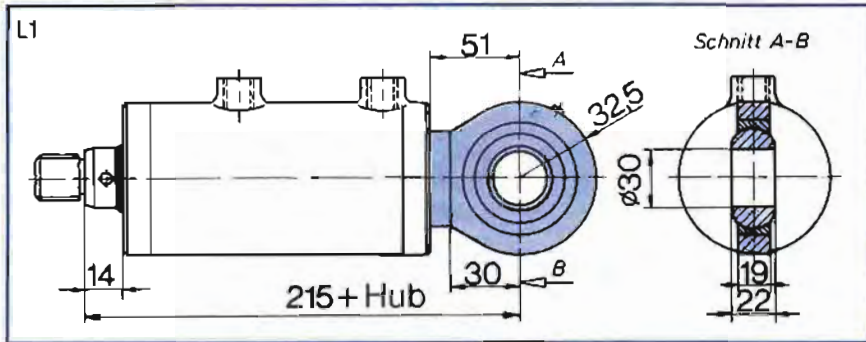
Kolben \varnothing	60	
Stangen \varnothing	35	40
$A_2[\text{cm}^2]$	18,65	15,7
$A_D[\text{cm}^2]$	28,3	$F_{\text{max}}[\text{KN}]$ 59,4



Bestellbeispiel: Hydro-Zylinder mit Schwenzapfen und Gelenkauge an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 60 x 35 x 225 Hub / z-SL1-R



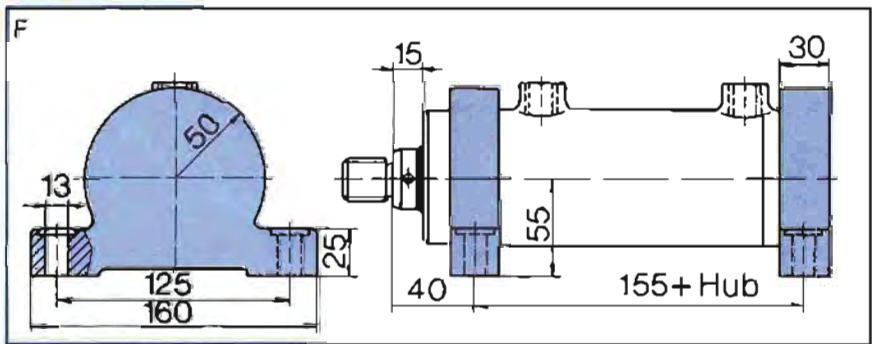
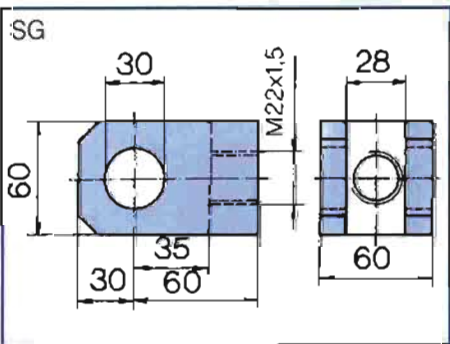
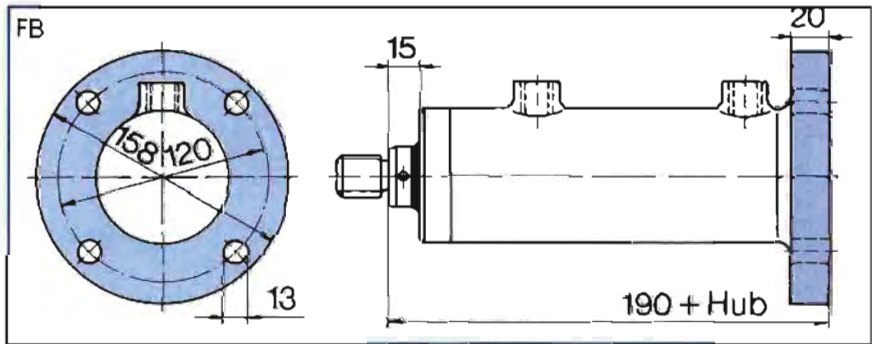
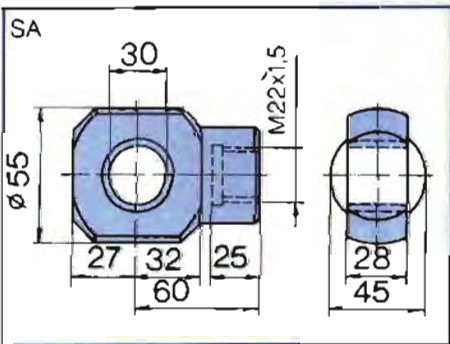
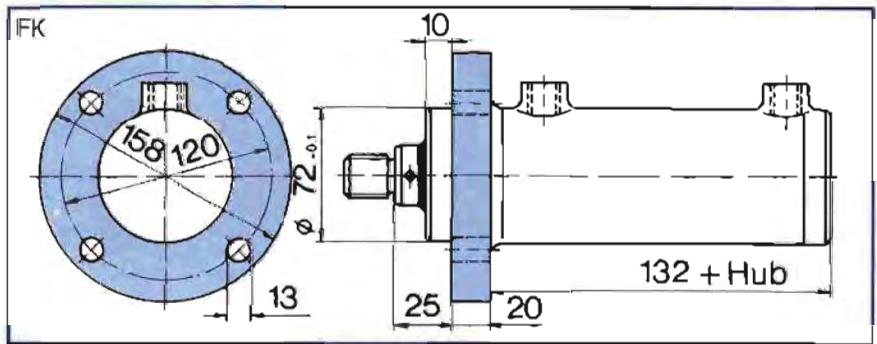
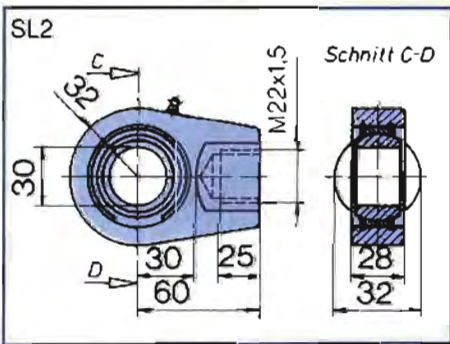
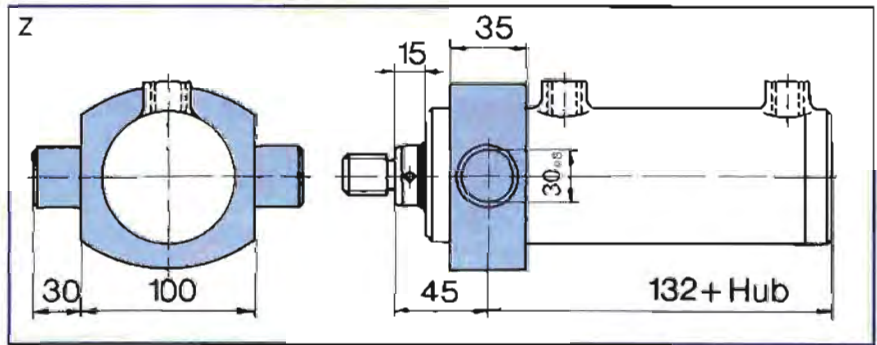
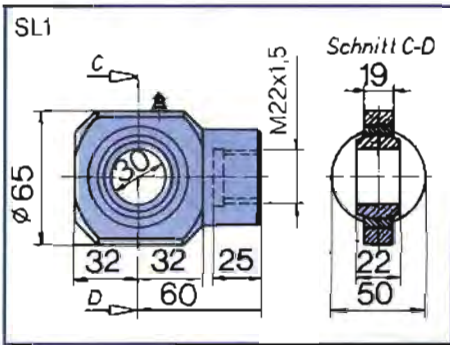
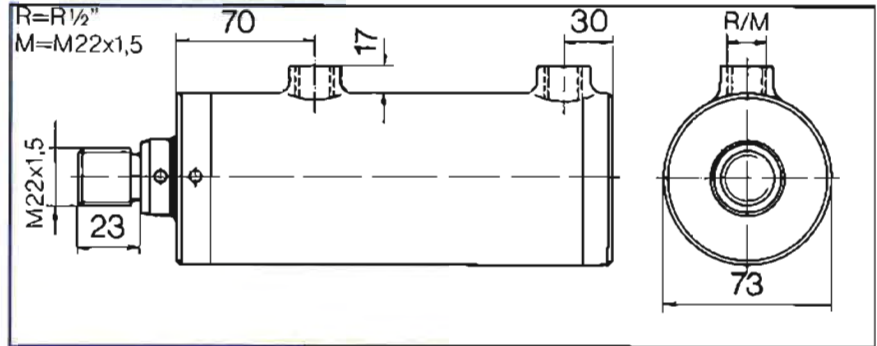
Kolben \varnothing 60		
Stangen \varnothing	35	40
A_z [cm ²]	18,65	15,7
A_D [cm ²]	28,3	F_{max} [kN] 59,4



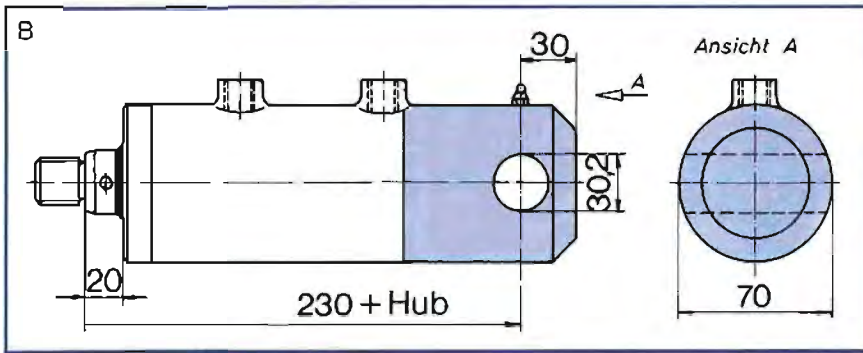
Baureihe ZEN

210 bar

Kolben \varnothing 63	
Stangen \varnothing	40 45
A_z [cm ²]	18,6 15,3
A_D [cm ²]	31,2 F_{max} [KN] 65,5

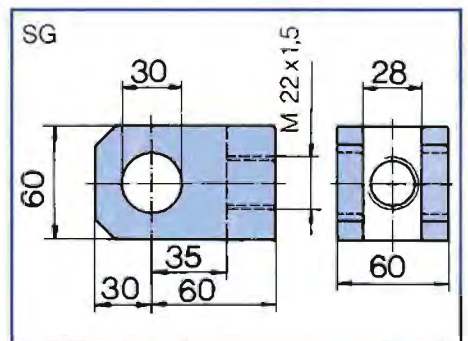
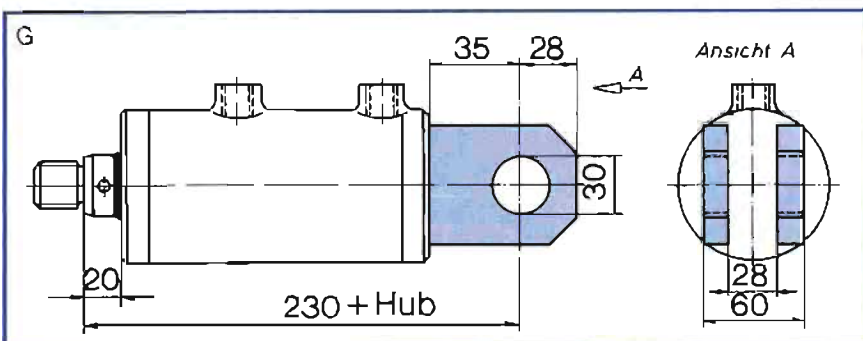
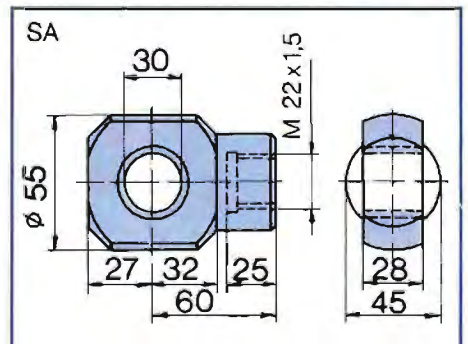
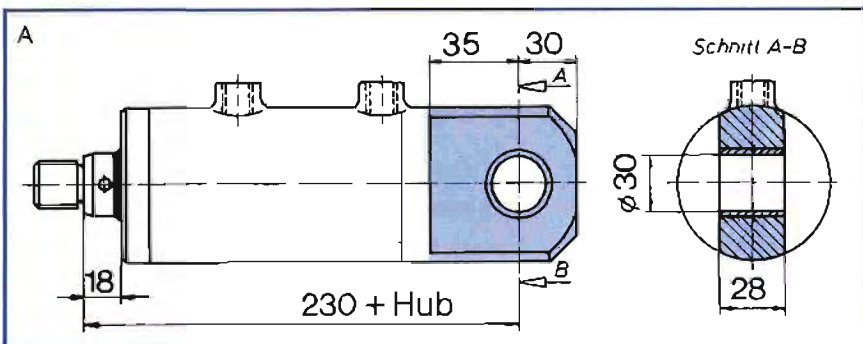
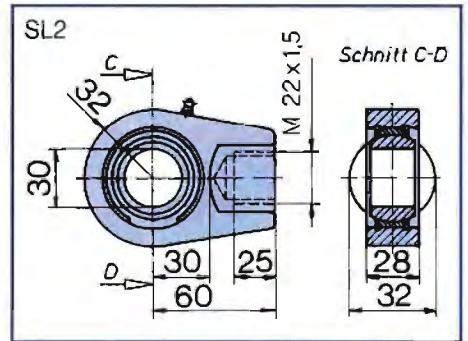
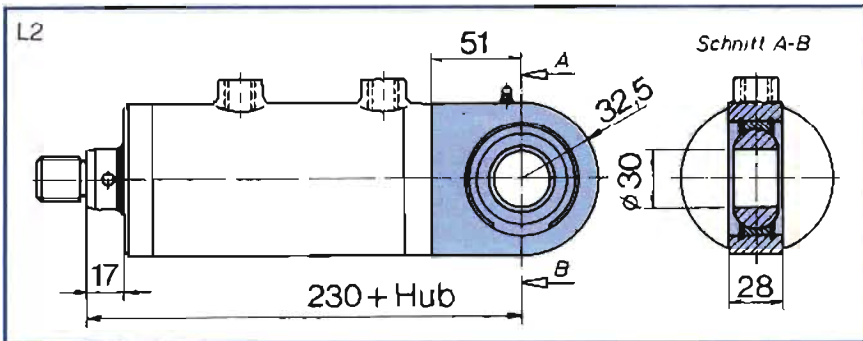
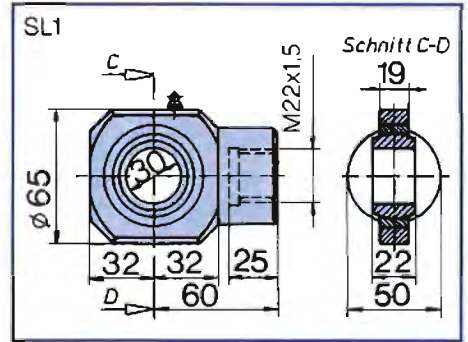
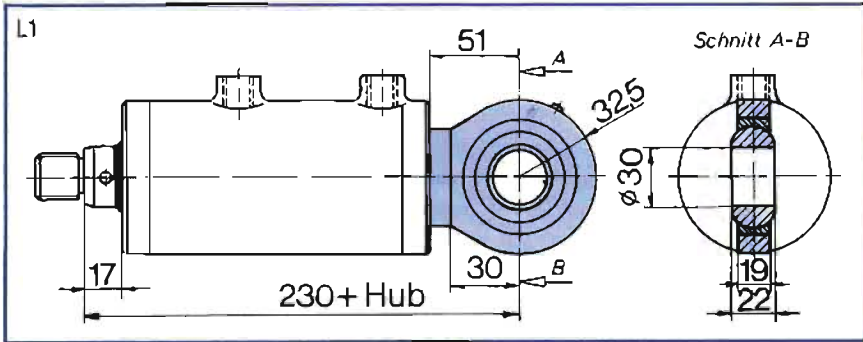


Bestellbeispiel: Hydro-Zylinder mit Flansch am Kopf und Gabelkopf an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 63 x 40 x 190 Hub / FK-SG-R



Kolben \varnothing 63

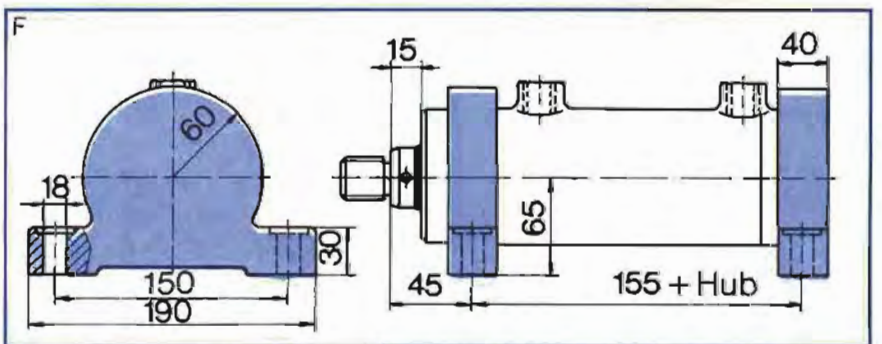
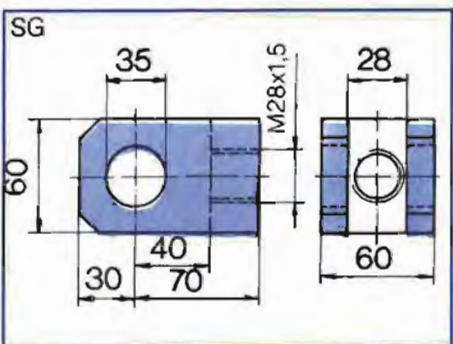
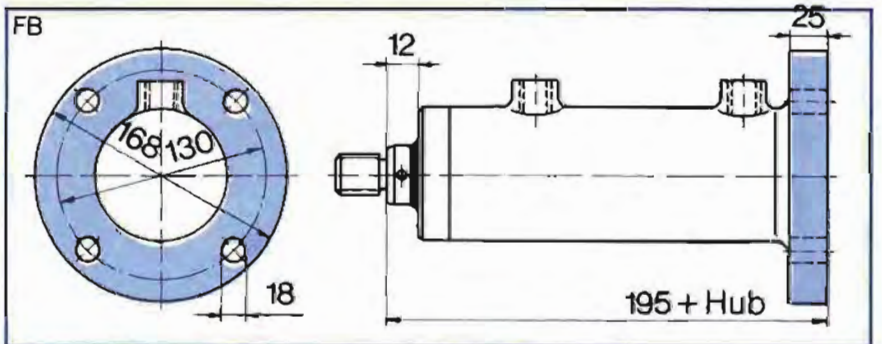
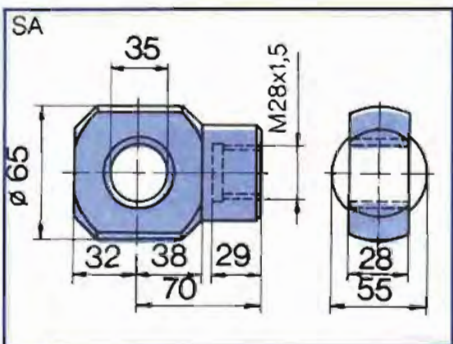
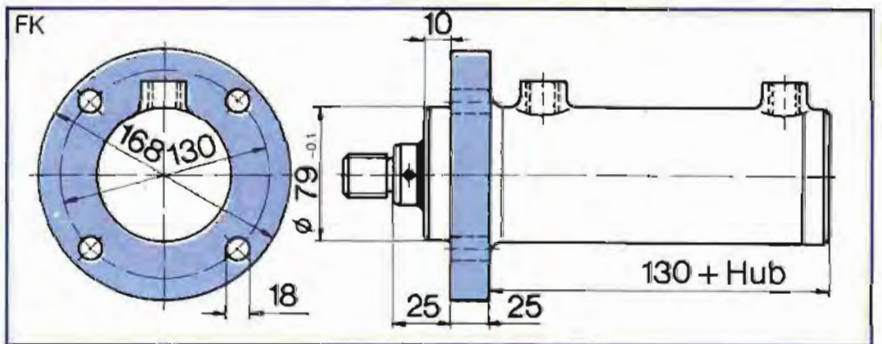
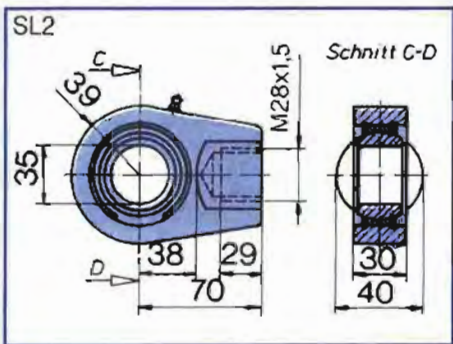
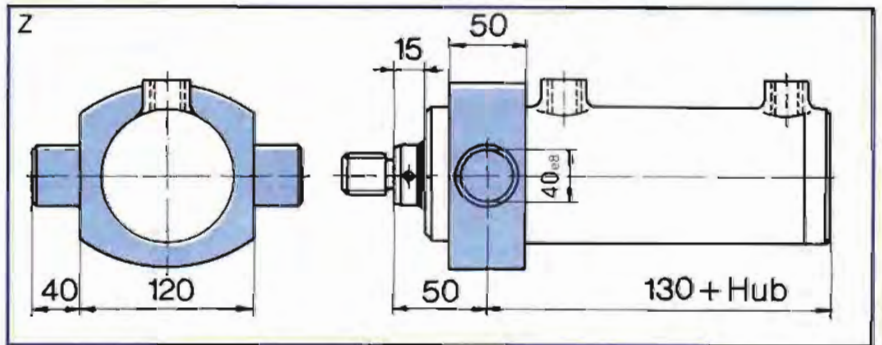
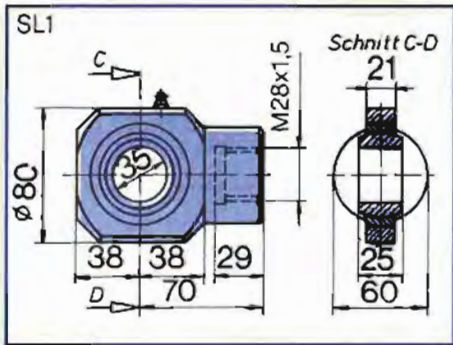
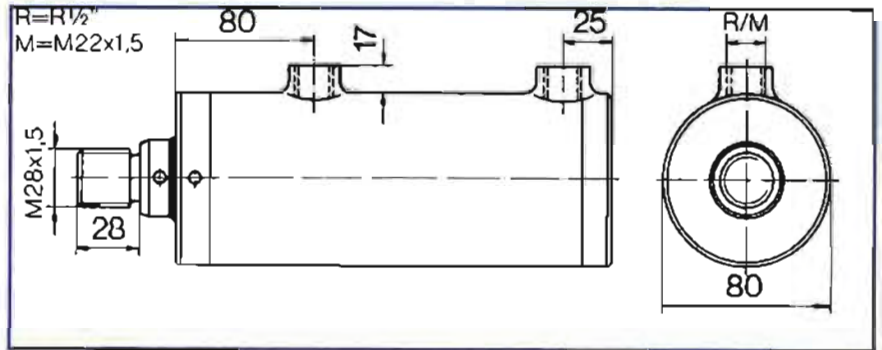
Stangen \varnothing	40	45
A_z [cm ²]	18,6	15,3
A_D [cm ²]	31,2	F_{max} [KN] 65,5



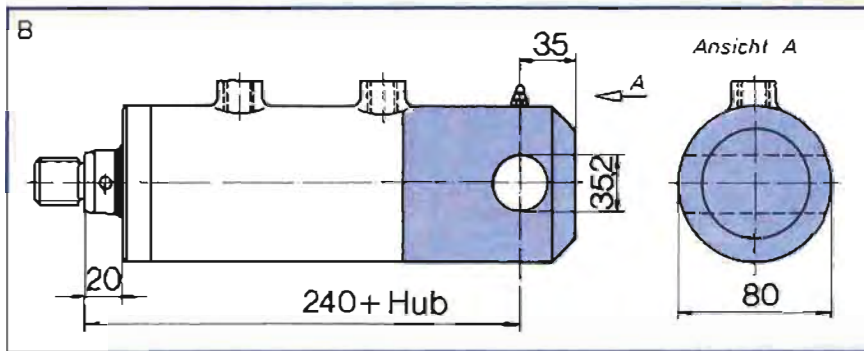
Baureihe ZEN

210 bar

Kolben \varnothing 70	
Stangen \varnothing	40 45
A_z [cm ²]	25,9 22,6
A_D [cm ²]	38,5
F_{max} [kN]	80,8

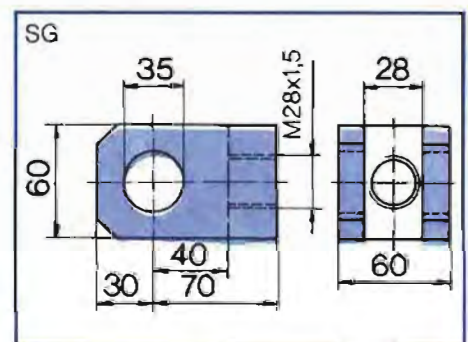
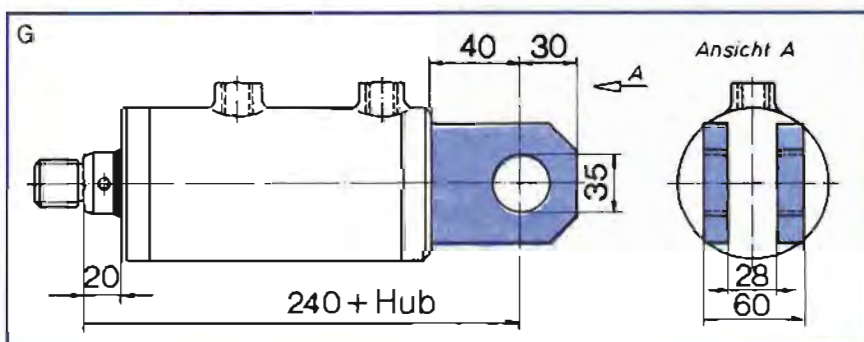
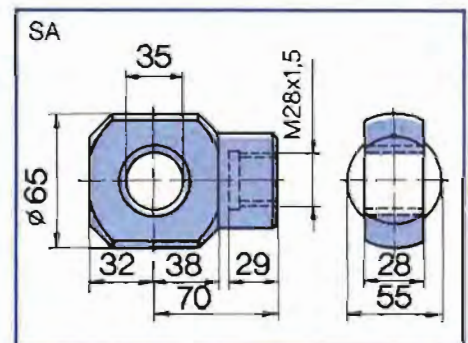
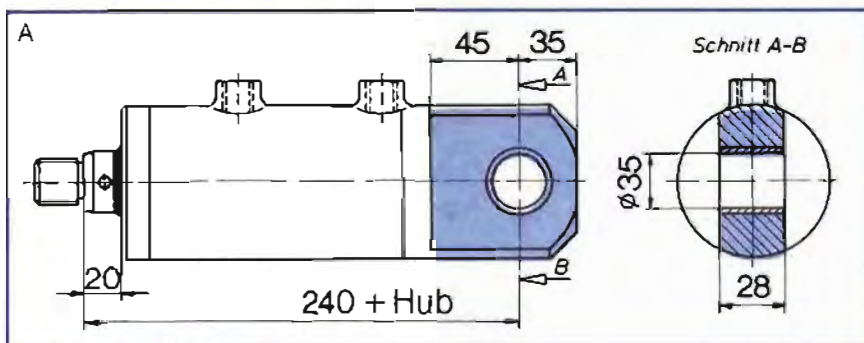
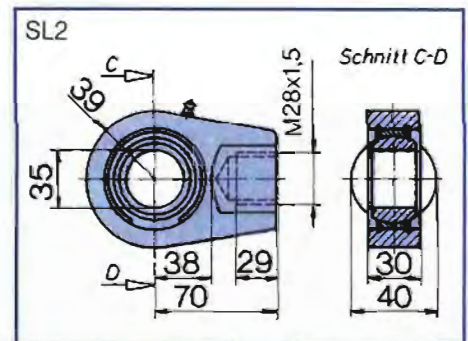
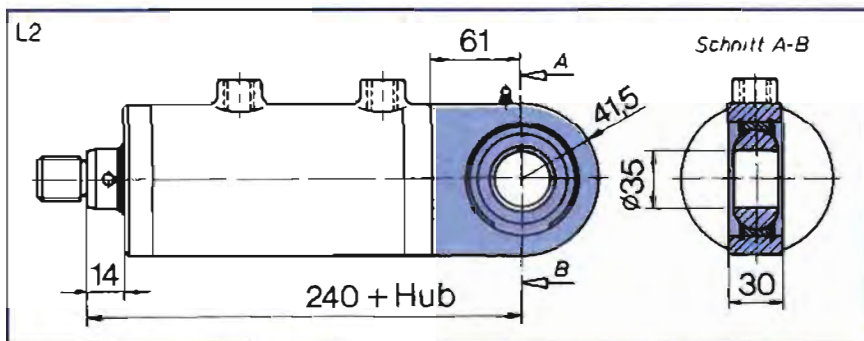
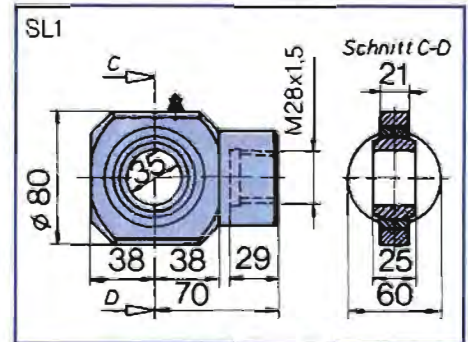
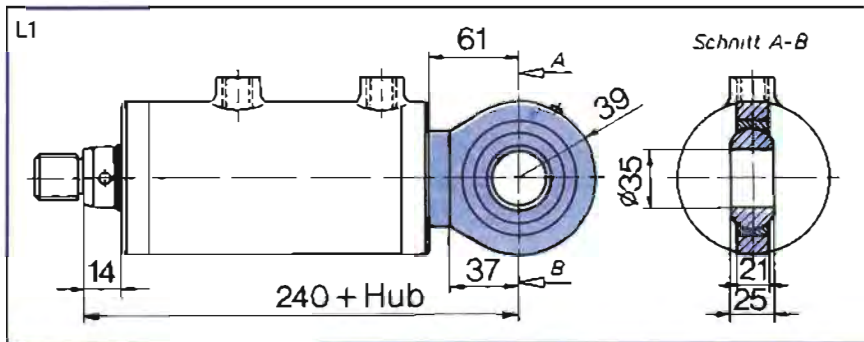


Bestellbeispiel: Hydro-Zylinder mit Flansch am Boden und Schwenkauge an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 70 x 45 x 350 Hub / FB-SA-R



Kolben ϕ 70

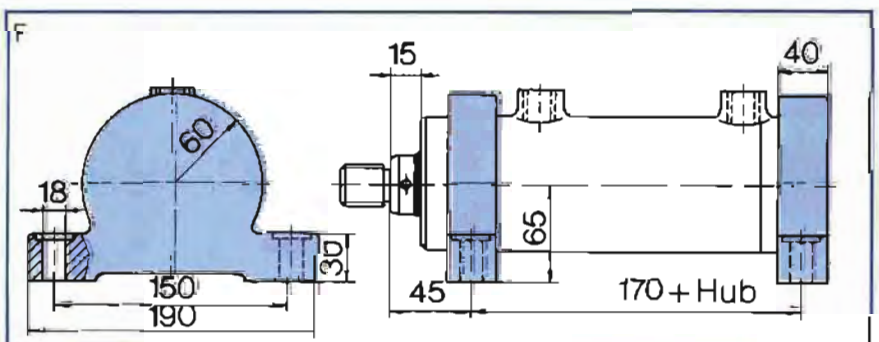
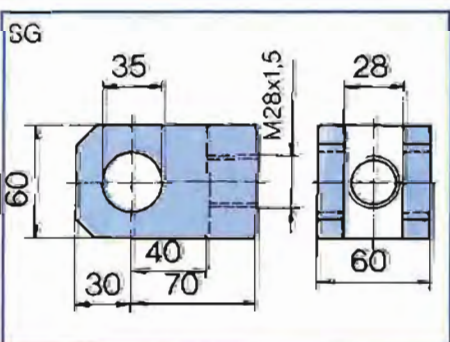
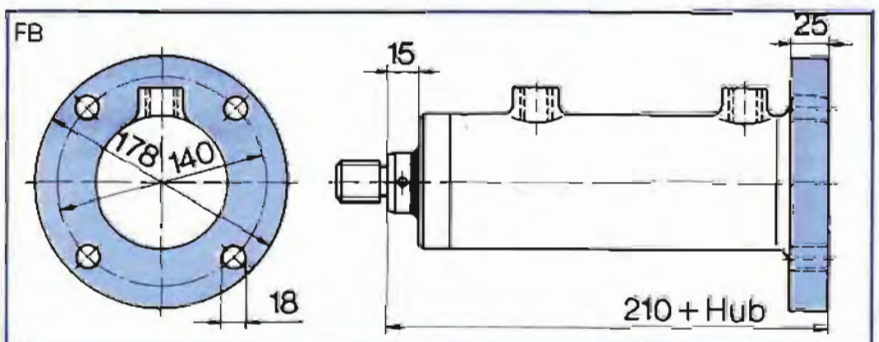
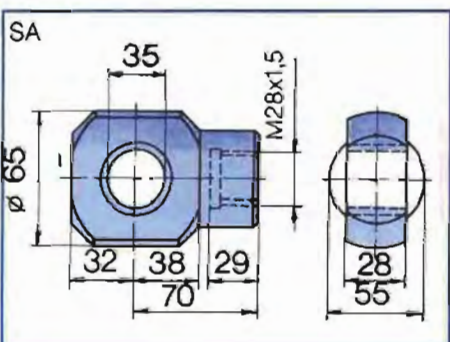
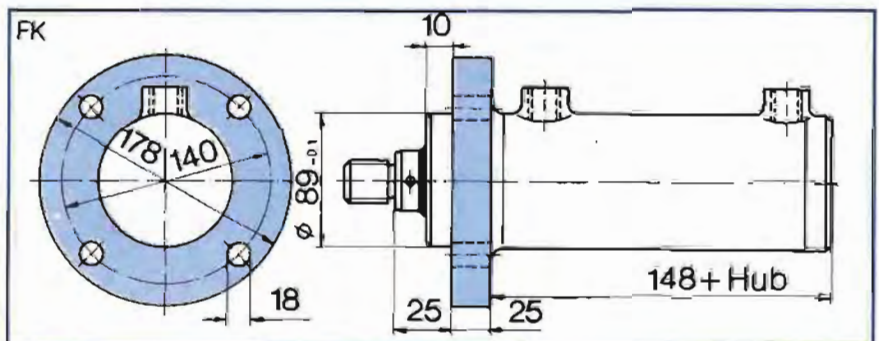
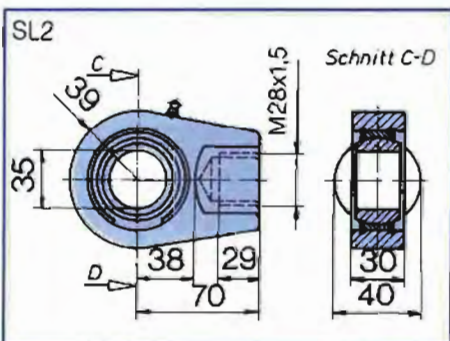
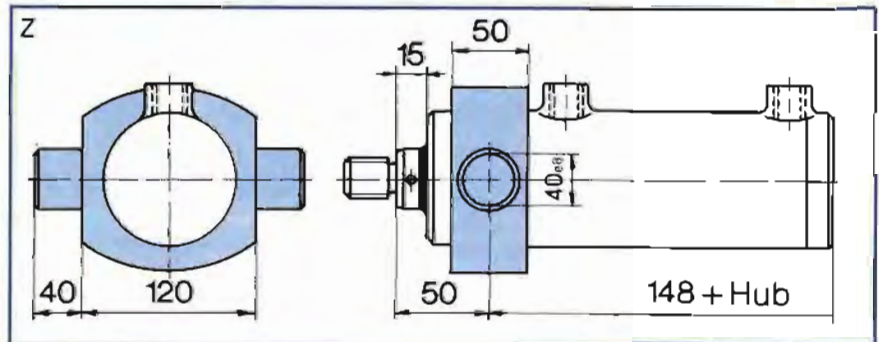
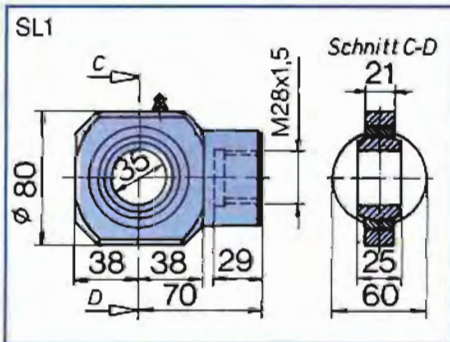
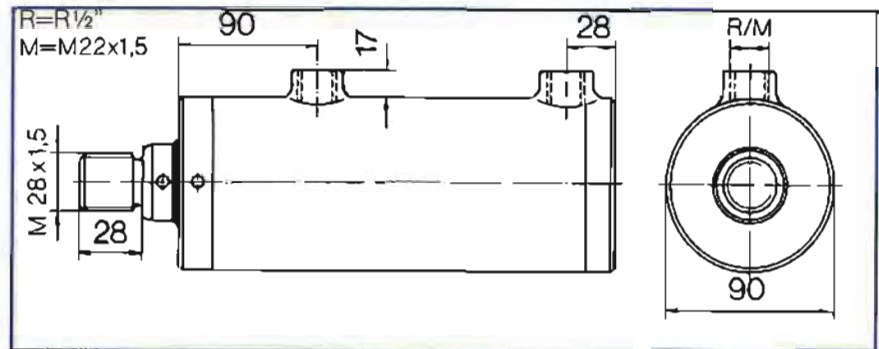
Stangen ϕ	40	45
A_z [cm ²]	25,9	22,6
A_D [cm ²]	38,5	F_{max} [kN] 80,8



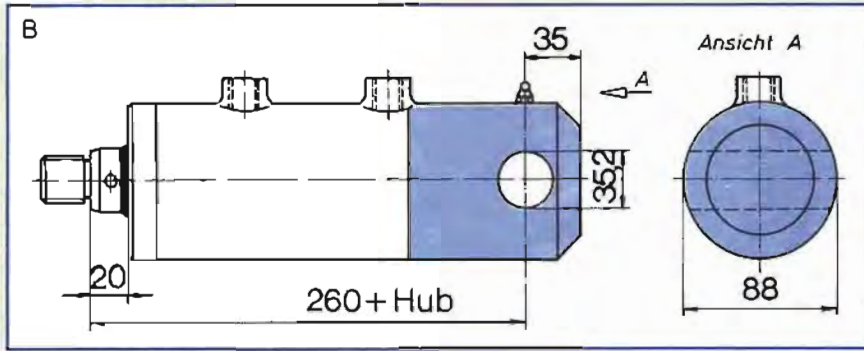
Baureihe ZEN

210 bar

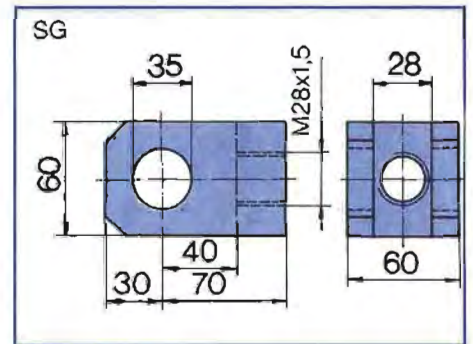
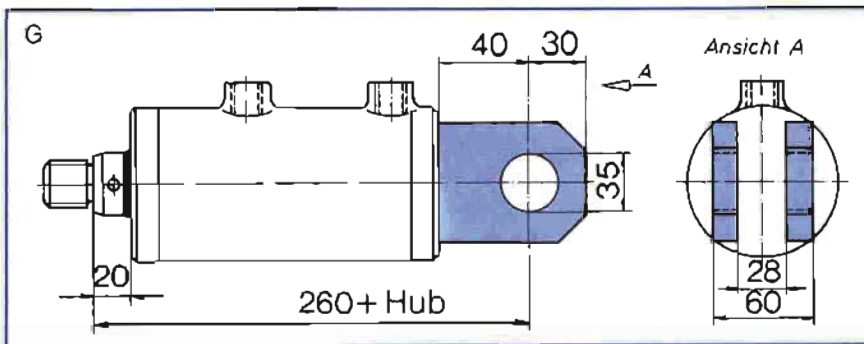
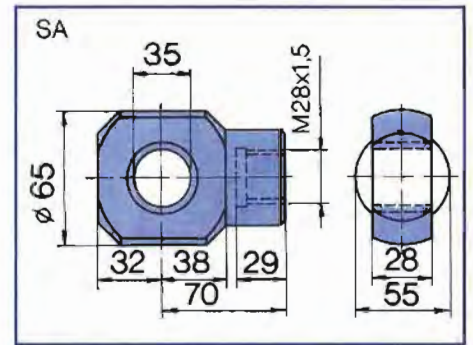
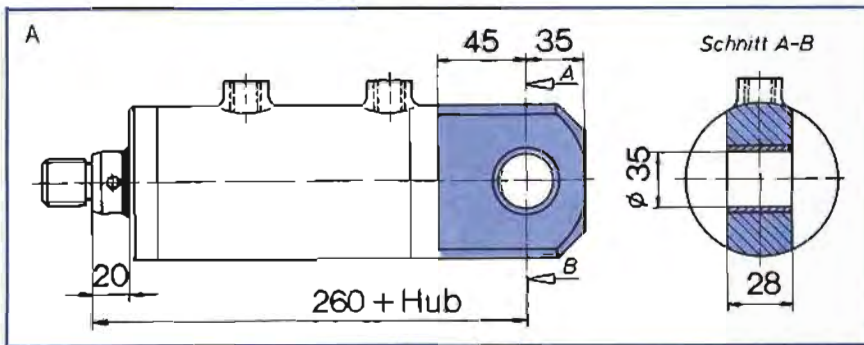
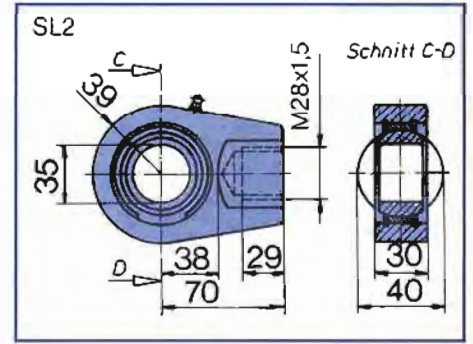
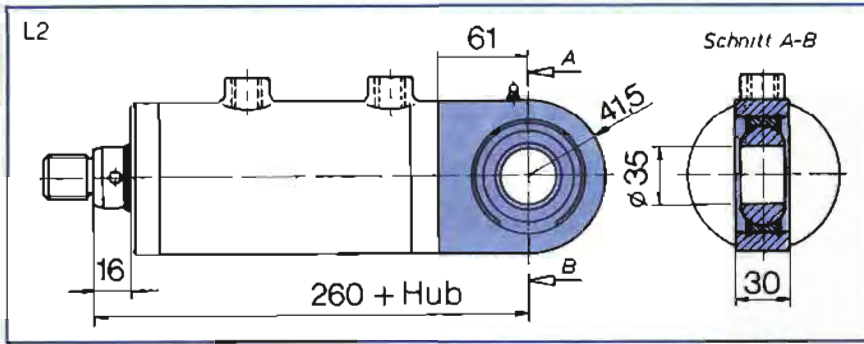
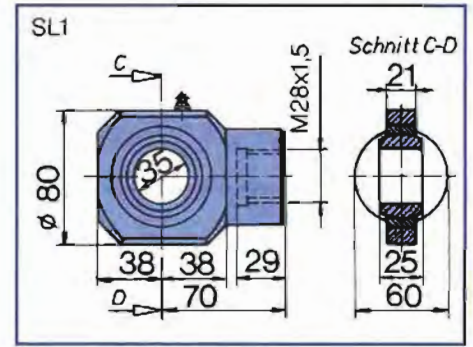
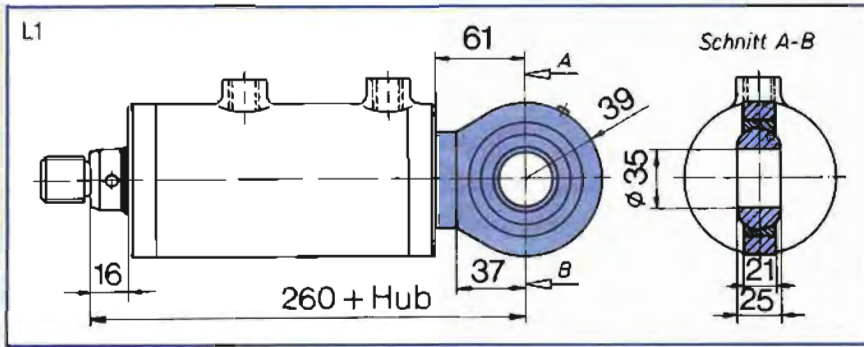
Kolben \varnothing 80	
Stangen \varnothing	40 55
A_z [cm ²]	37,7 26,5
A_D [cm ²]	50,26
F_{max} [kN]	105,5



Bestellbeispiel: Hydro-Zylinder mit Fußbefestigung und Gelenkauge an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 80 x 55 x 285 Hub / F-SL1-R



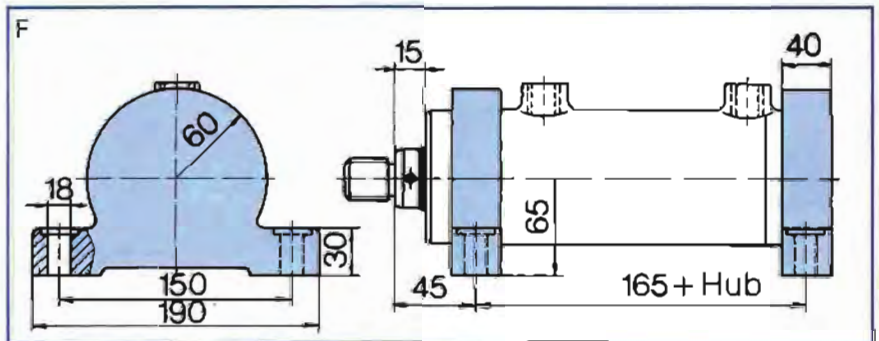
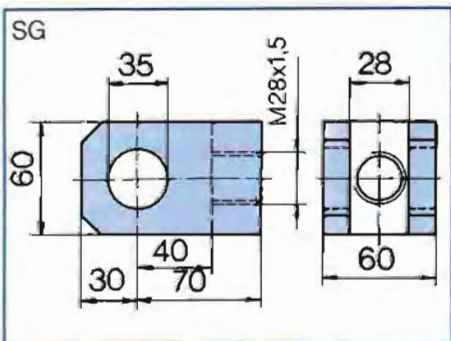
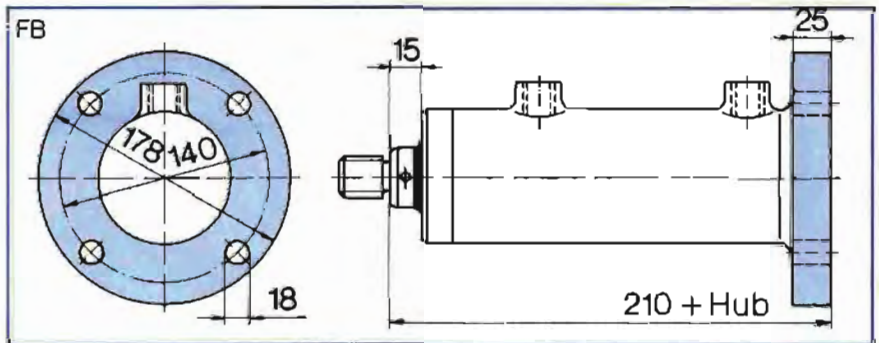
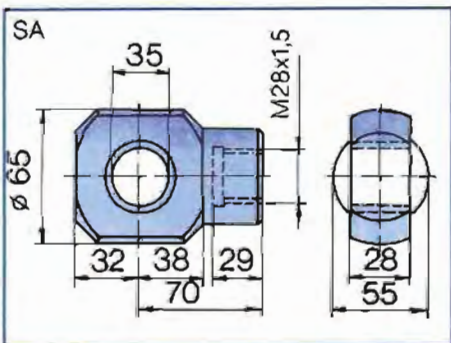
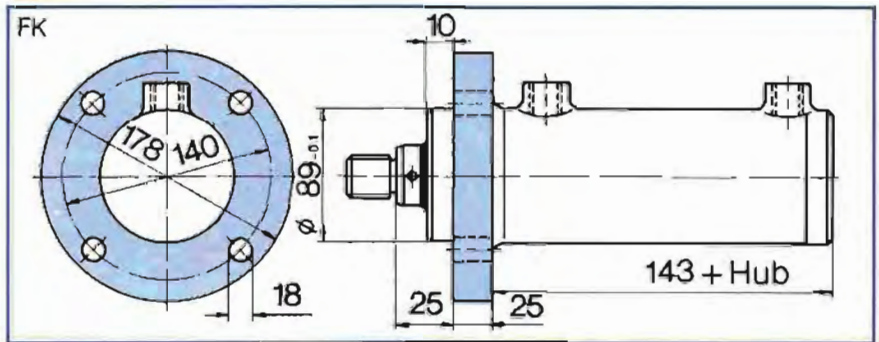
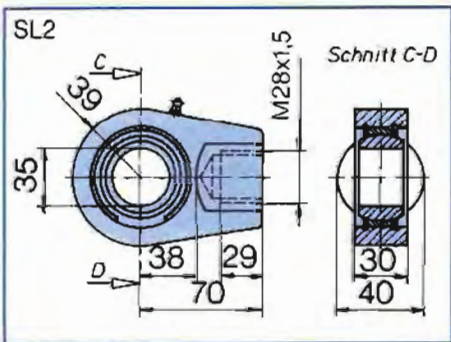
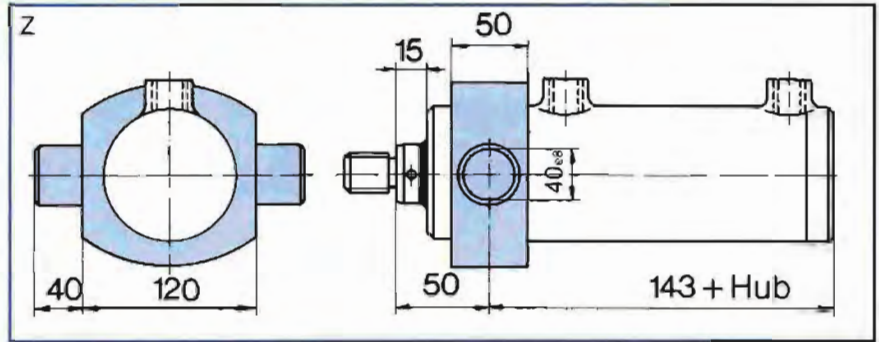
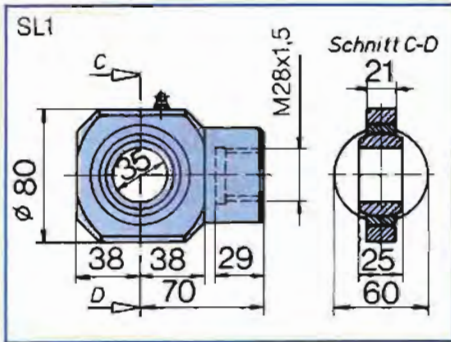
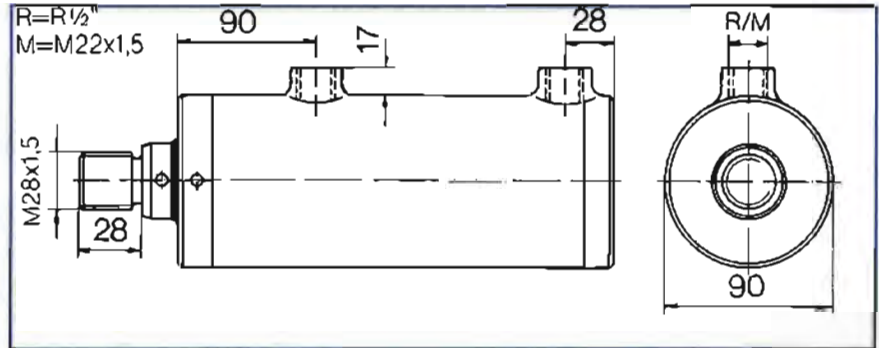
Kolben ϕ 80		
Stangen ϕ	40	55
A_z [cm ²]	37,7	26,5
A_D [cm ²]	50,26	F_{max} [kN] 105,5



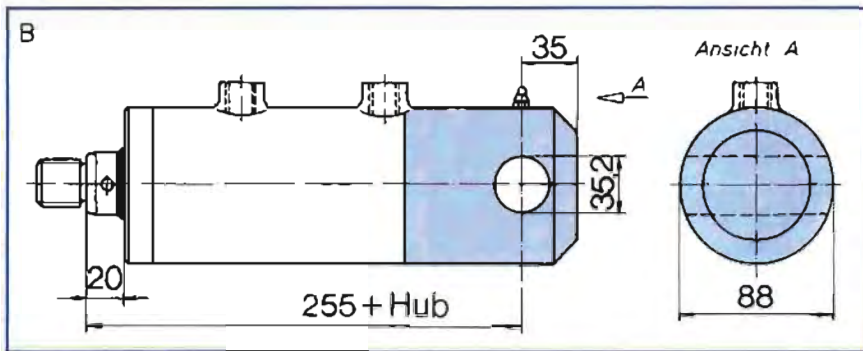
Baureihe ZEN

210 bar

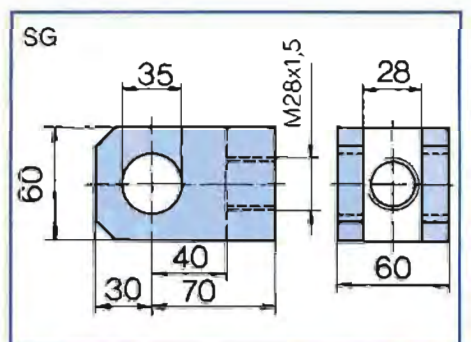
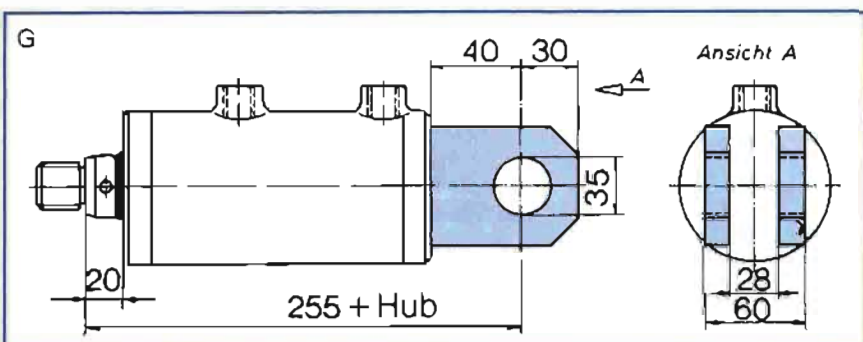
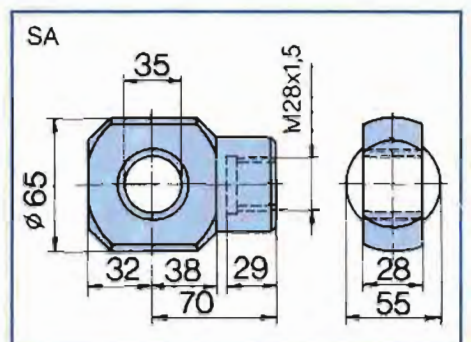
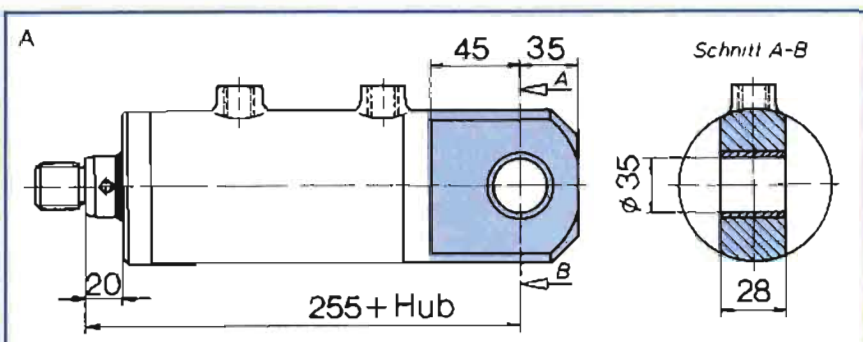
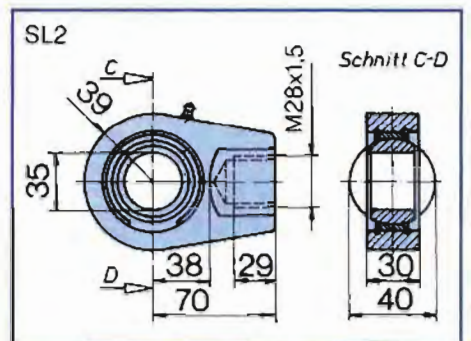
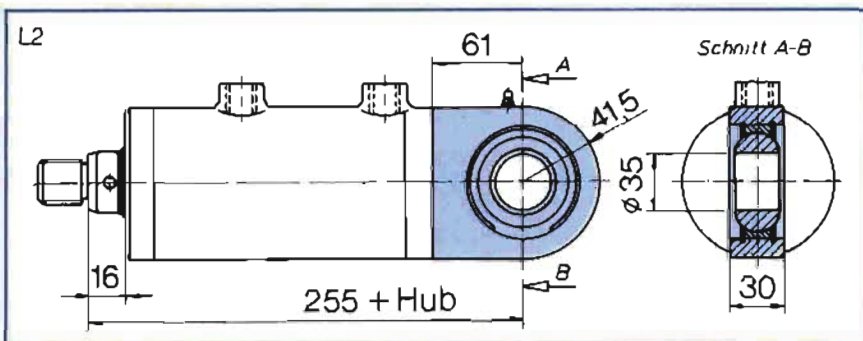
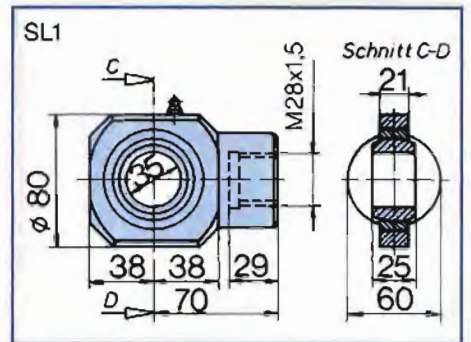
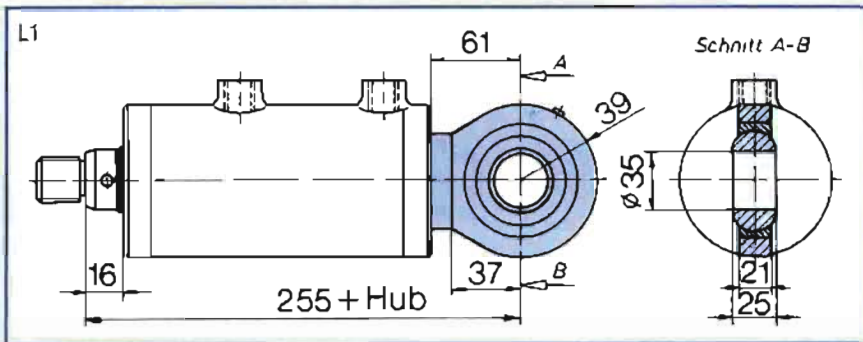
Kolben \varnothing 80	
Stangen \varnothing	45 50
A_z [cm ²]	34,36 30,63
A_D [cm ²]	50,26
F_{max} [kN]	105,5



Bestellbeispiel: Hydro-Zylinder mit Flansch am Kopf und Gelenkauge an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 80 x 50 x 255 Hub / FK-SL2-R



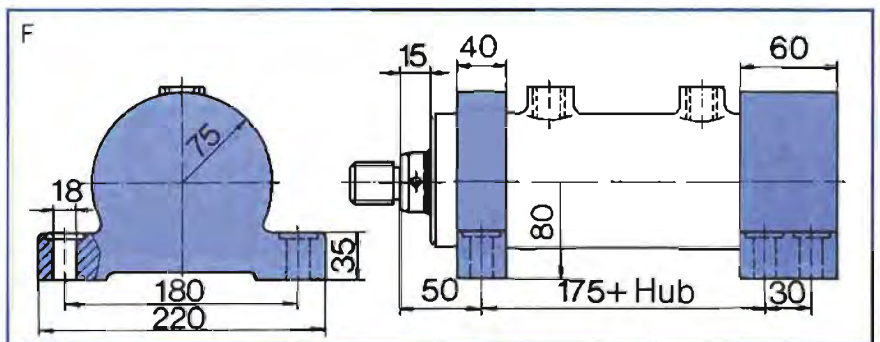
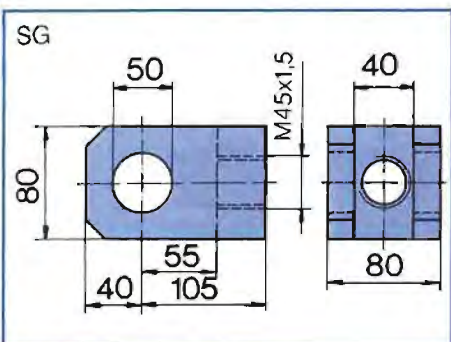
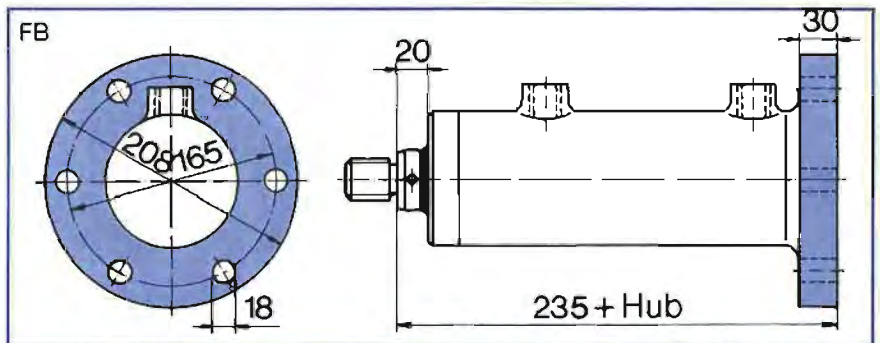
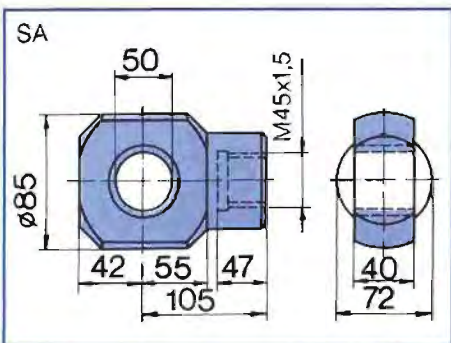
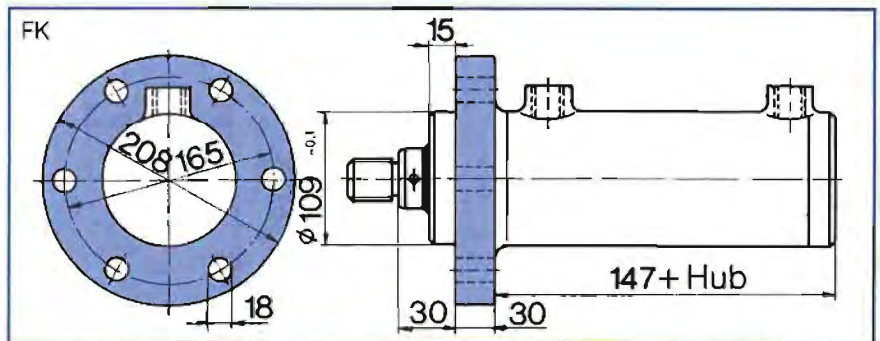
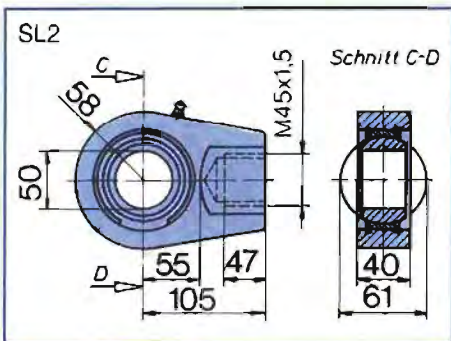
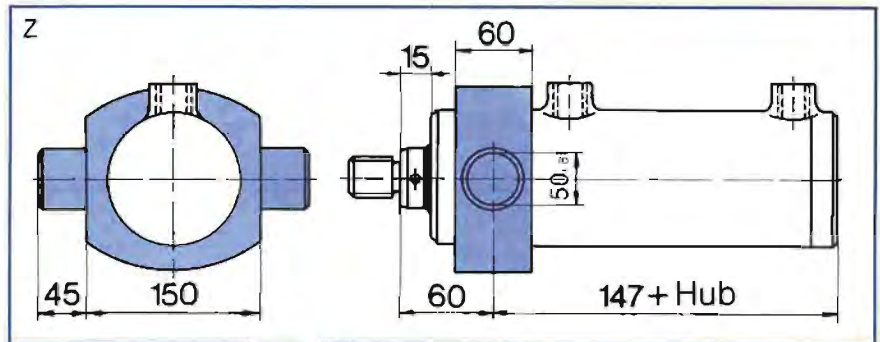
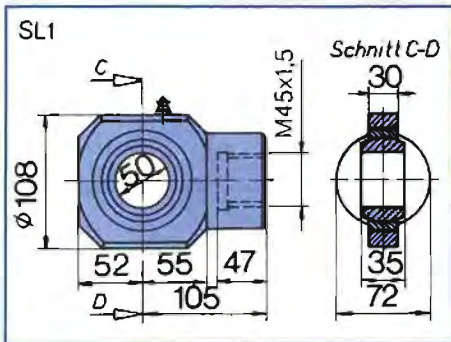
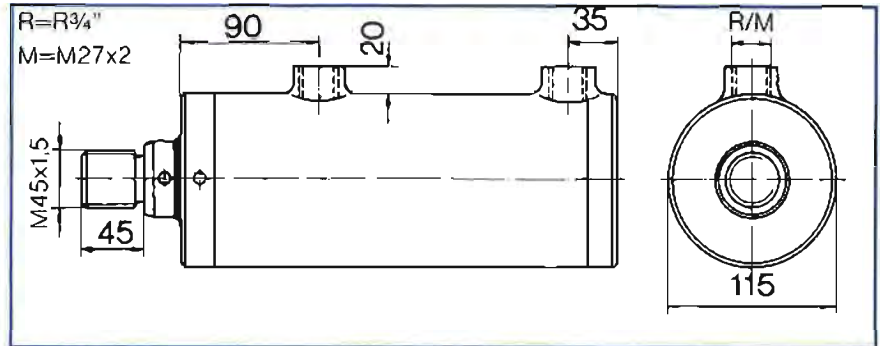
Kolben \varnothing 80		
Stangen \varnothing	45	50
A_2 [cm ²]	34,36	30,63
A_D [cm ²]	50,26	F_{max} [kN] 105,5



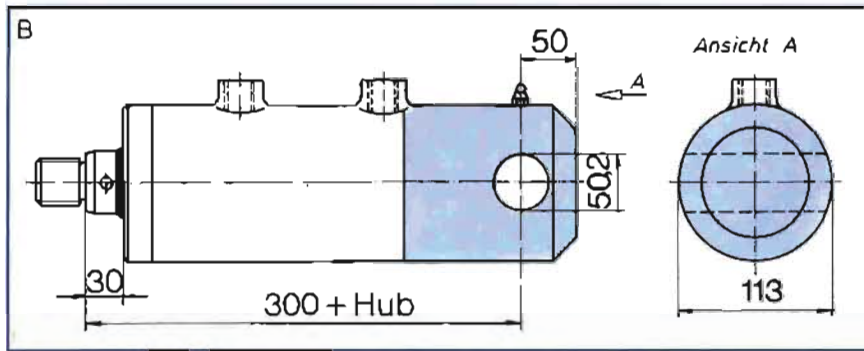
Baureihe ZEN

210 bar

Kolben \varnothing 100	
Stangen \varnothing	50 70
A_2 [cm ²]	58,9 40
A_D [cm ²]	78,5 F_{max} [kN] 164,9



Bestellbeispiel: Hydro-Zylinder mit Fußbefestigung und Gabelkopf an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 100 x 70 x 325 Hub / F-SG-R

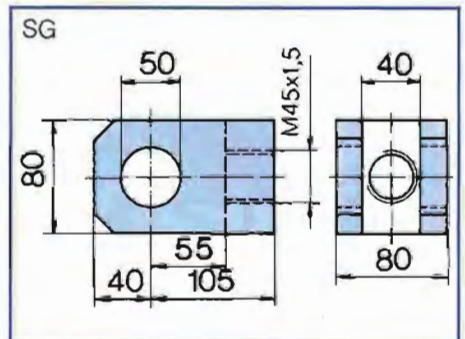
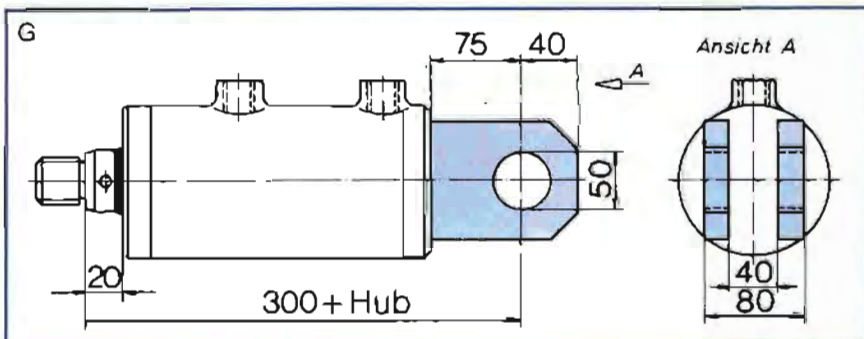
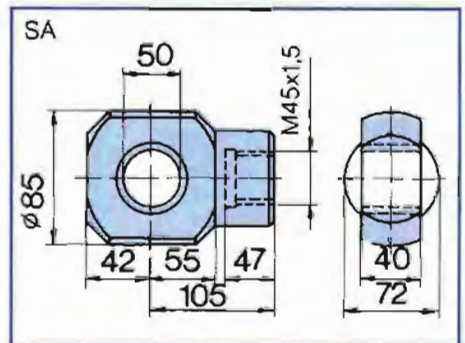
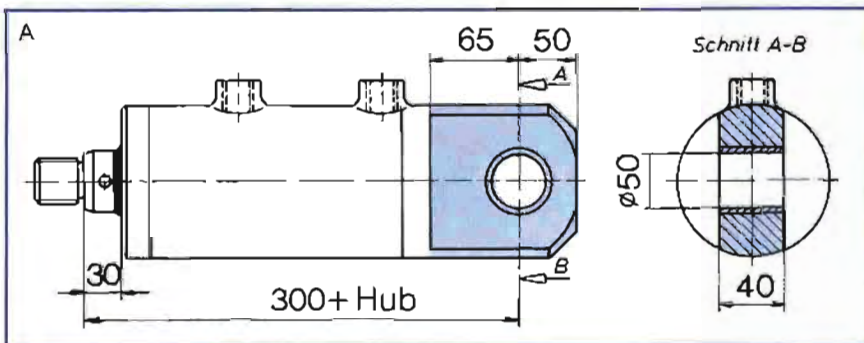
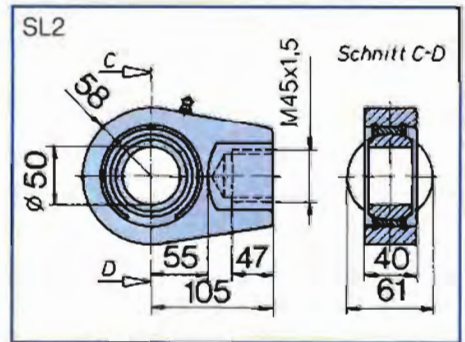
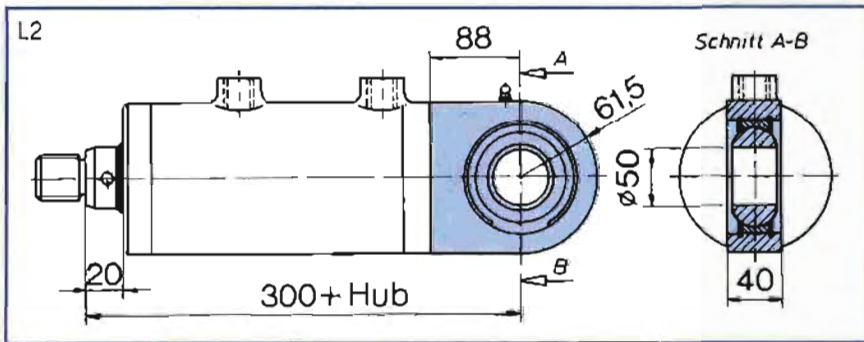
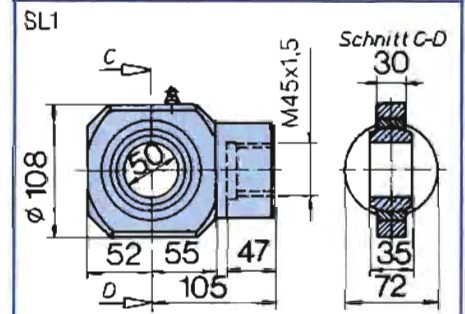
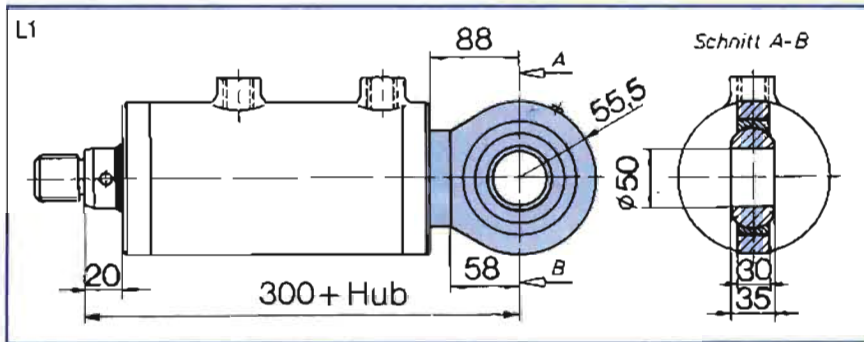


Kolben \varnothing 100

Stangen \varnothing	50	70
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A_z [cm ²]	58,9	40
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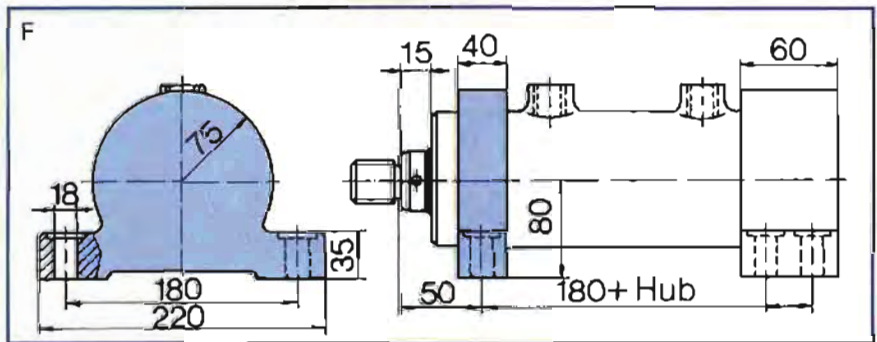
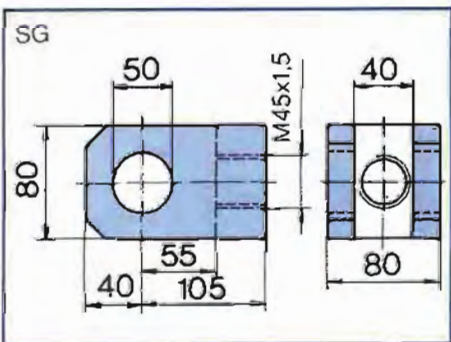
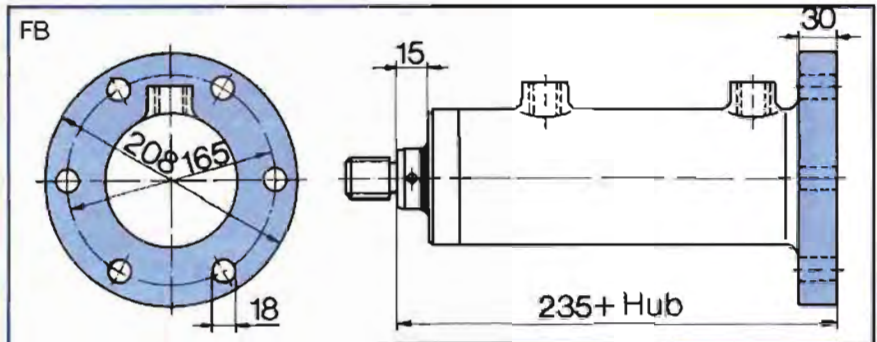
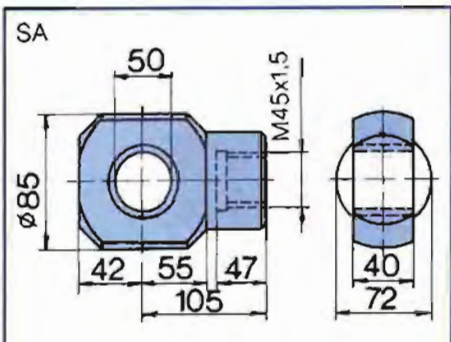
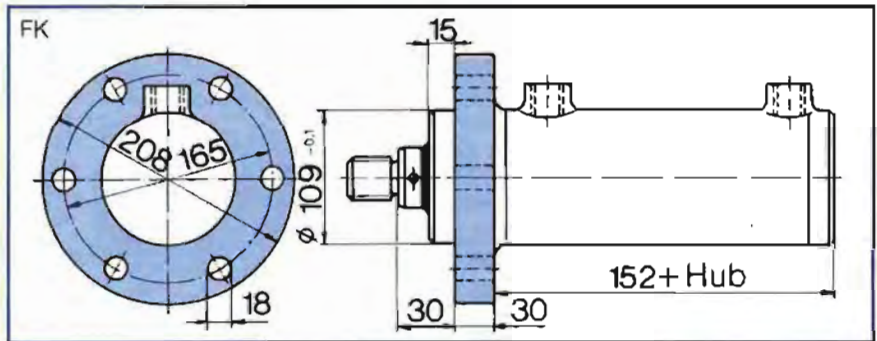
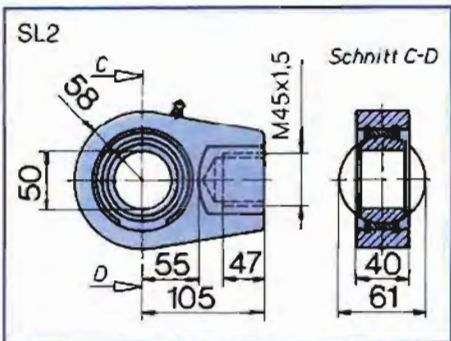
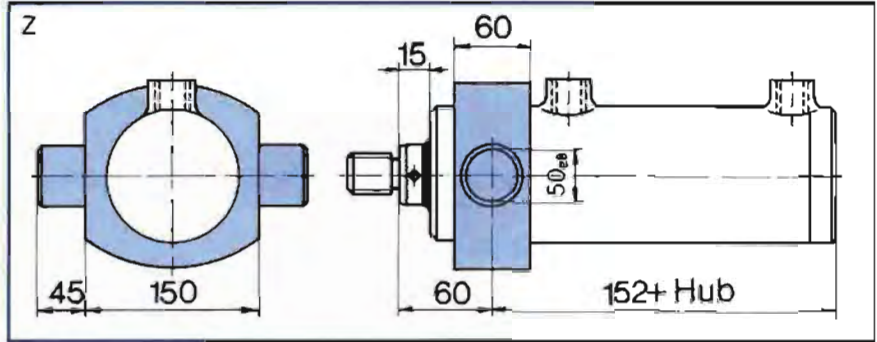
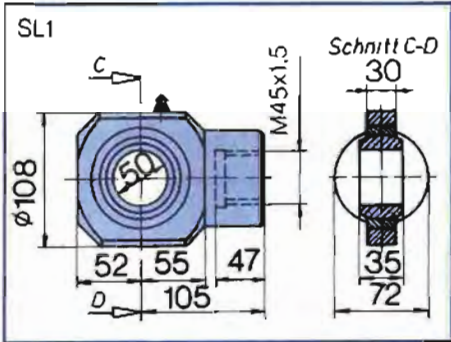
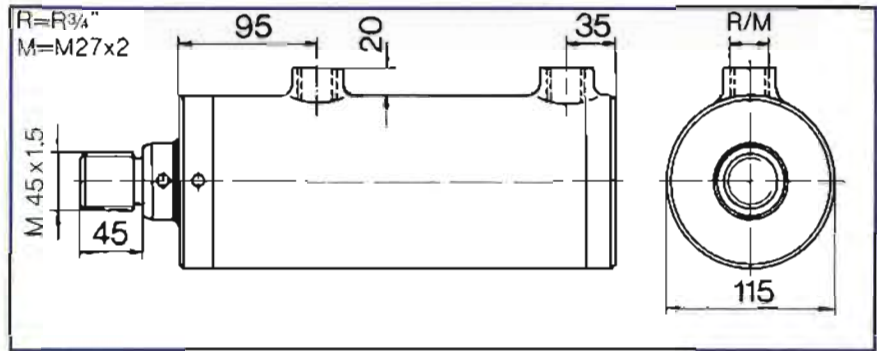
A_D [cm ²]	78,5	F_{max} [kN]	164,9
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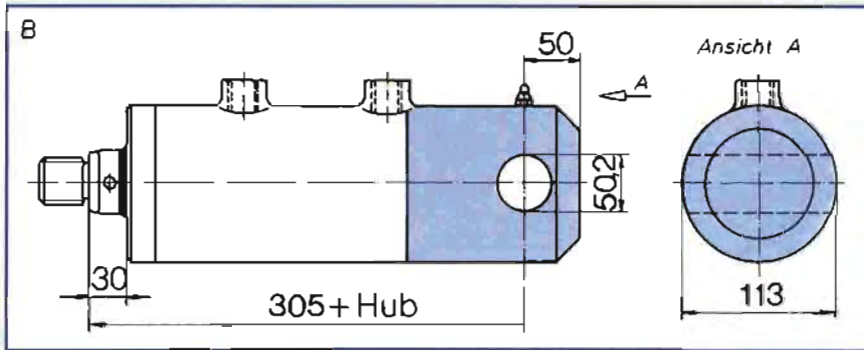
Baureihe ZEN

210 bar

Kolben \varnothing 100	
Stangen \varnothing	55 60
A_2 [cm ²]	54,78 50,26
A_D [cm ²]	78,5 F_{max} [KN] 164,9

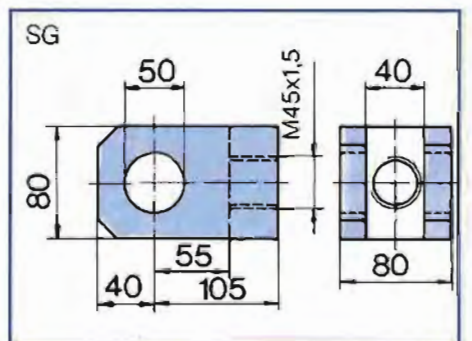
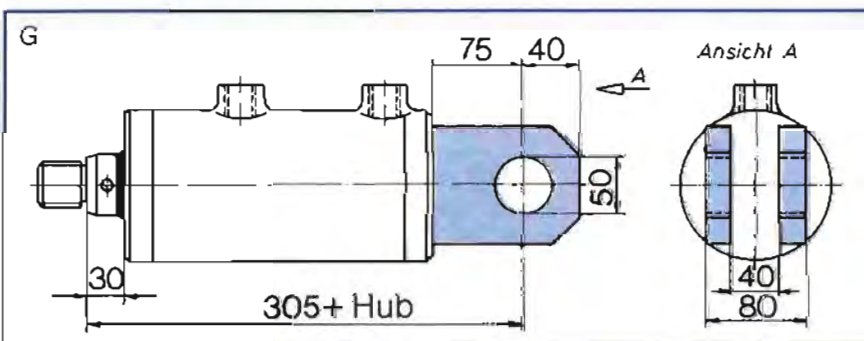
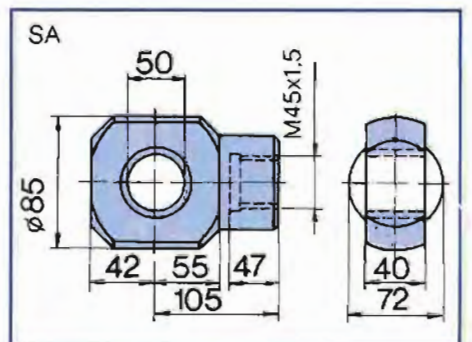
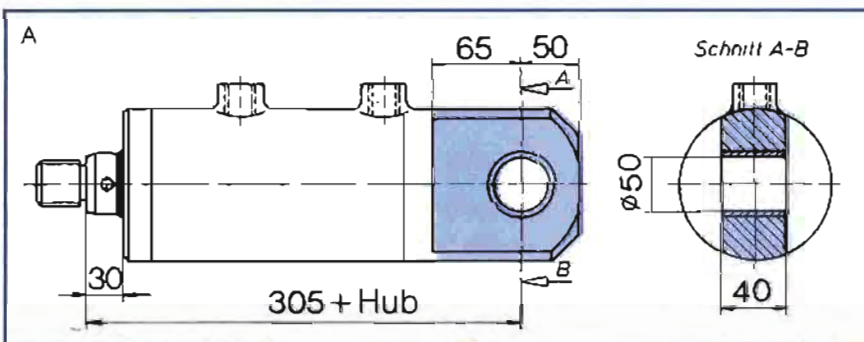
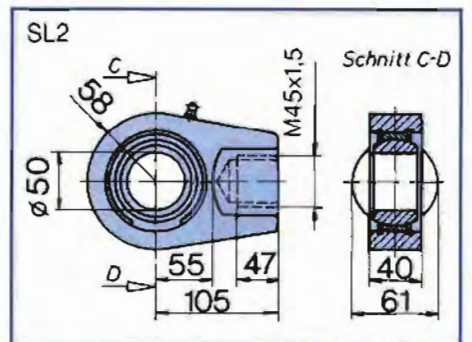
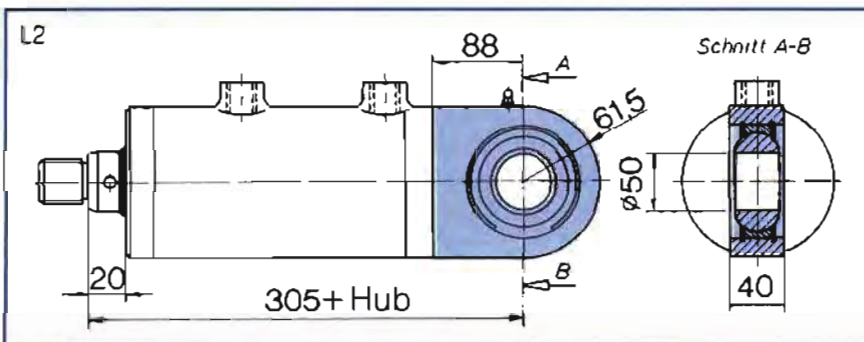
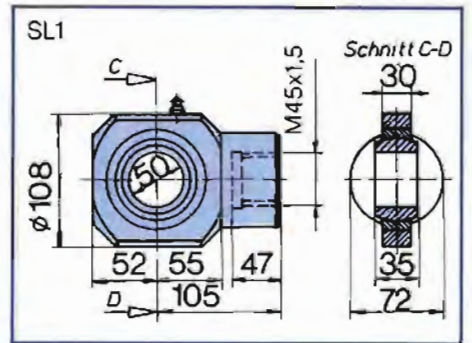
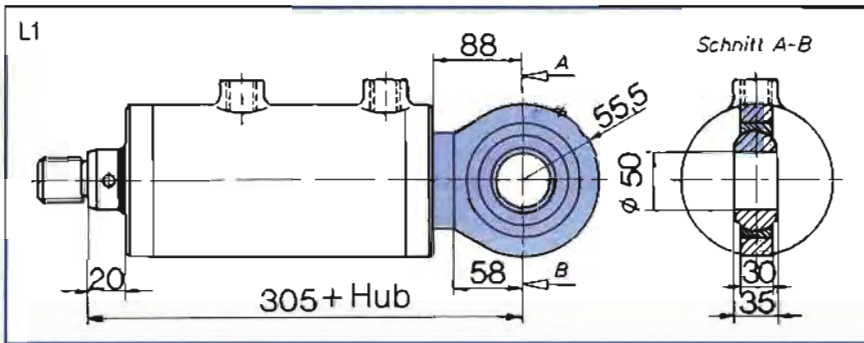


Bestellbeispiel: Hydro-Zylinder mit Bohrung am Boden und Gabelkopf an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 100 x 55 x 415 Hub / B-SG-R



Kolben \varnothing 100

Stangen \varnothing	55	60
A_z [cm ²]	54,78	50,26
A_D [cm ²]	78,5	F_{max} [kN]
		164,9



Baureihe ZEN

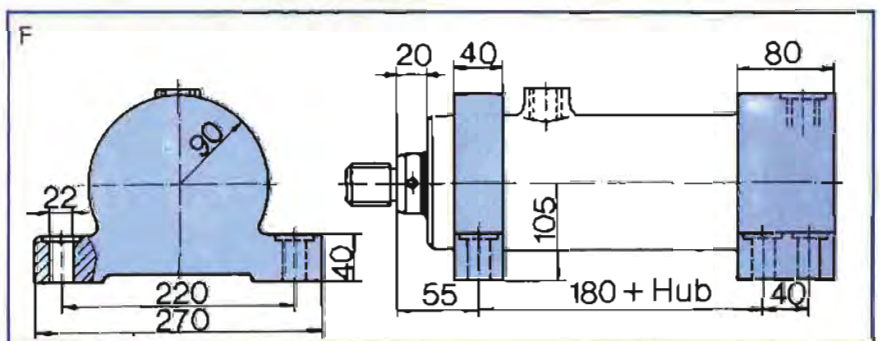
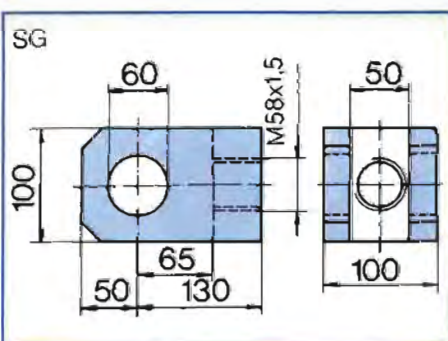
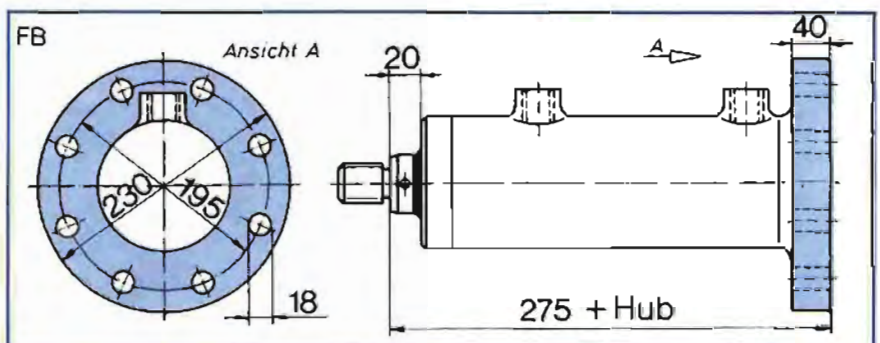
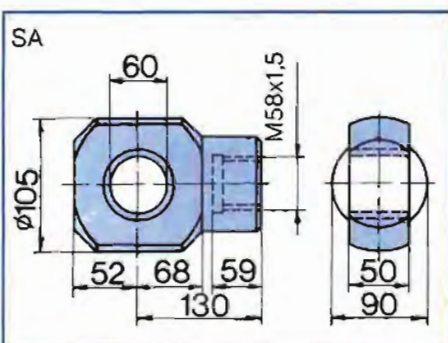
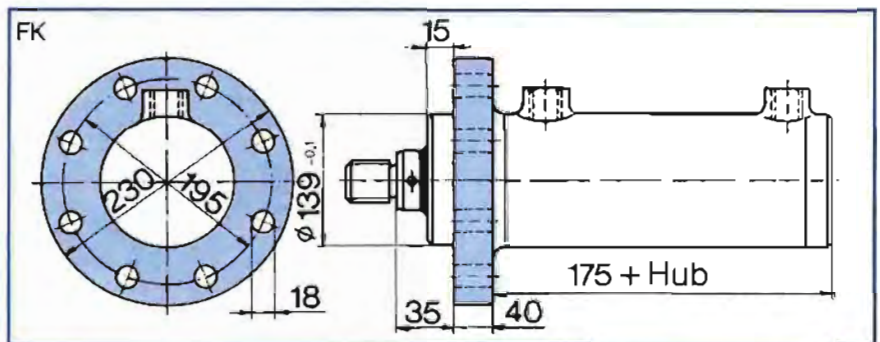
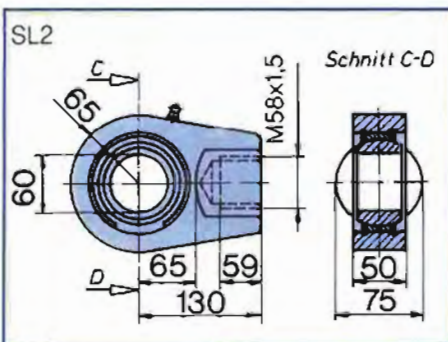
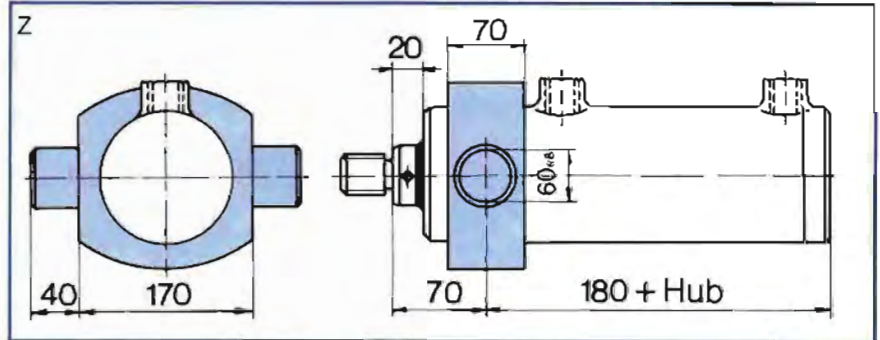
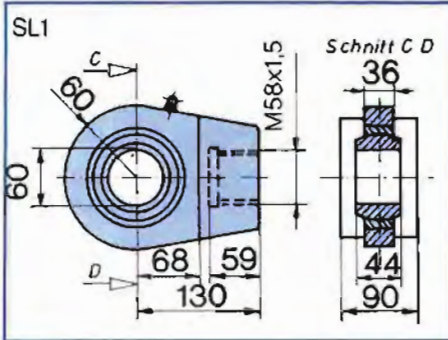
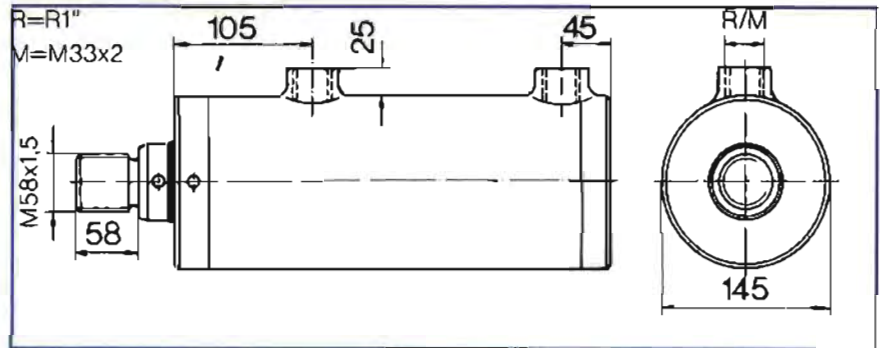
210 bar

Kolben \varnothing 125

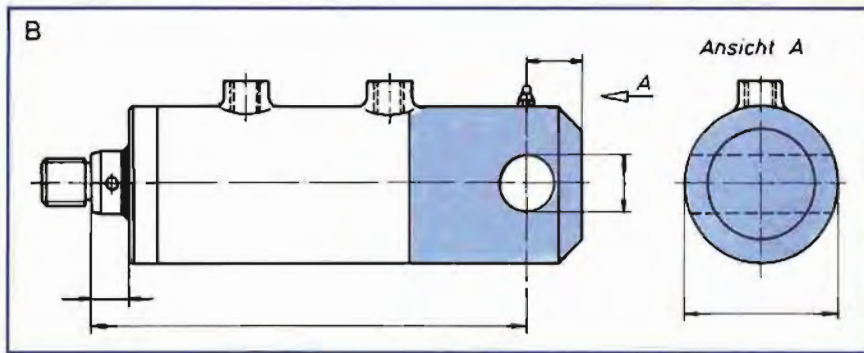
Stangen \varnothing 80 90

A_z [cm²] 72,4 59,1

A_D [cm²] 122,7 F_{max} [KN] 257,7



Bestellbeispiel: Hydro-Zylinder mit Gelenkauge an beiden Seiten, Anschlußgewinde in Zollabmessung:
ZEN 125x90x180 Hub / L1-SL1-R

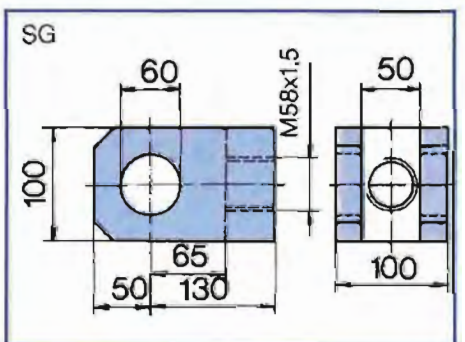
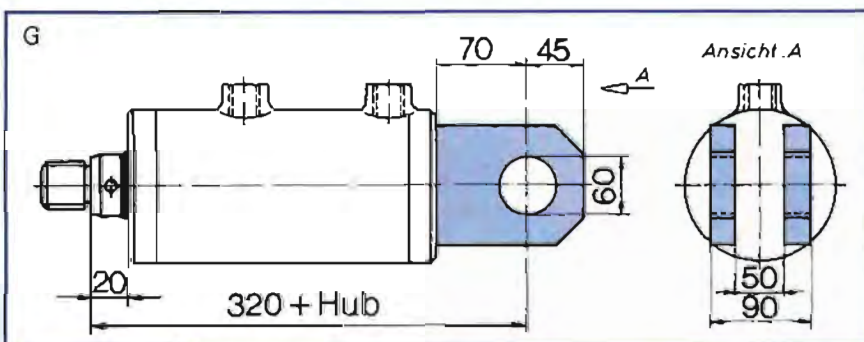
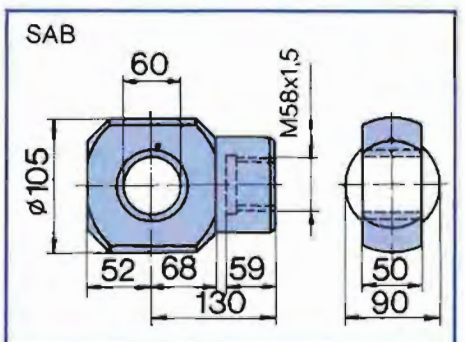
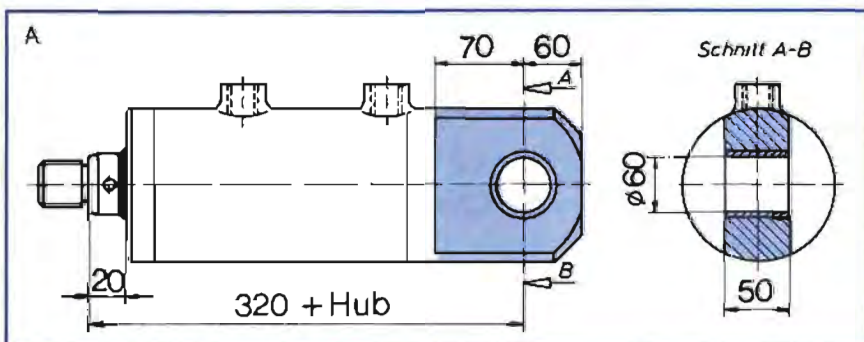
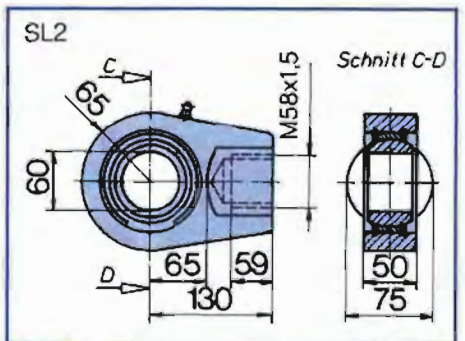
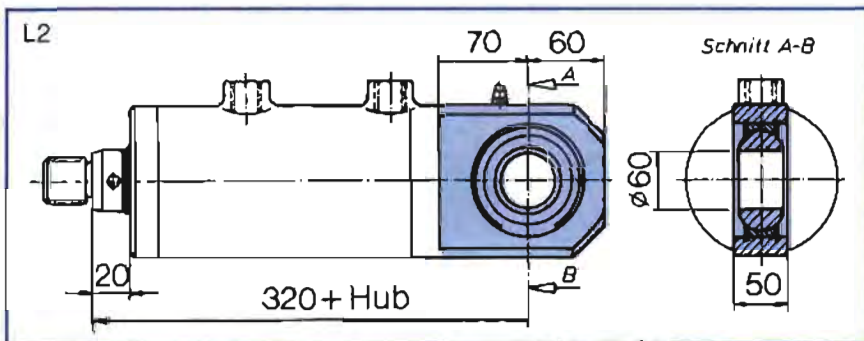
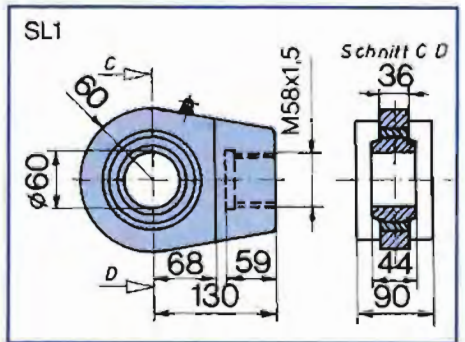
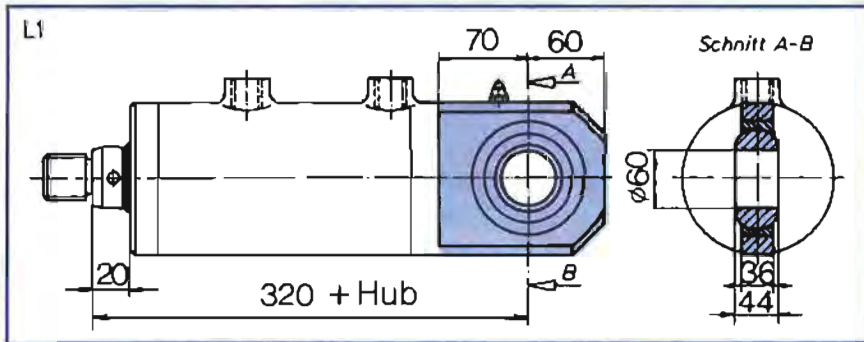


Kolben \varnothing 125

Stangen \varnothing	80	90
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A_z [cm ²]	72,4	59,1
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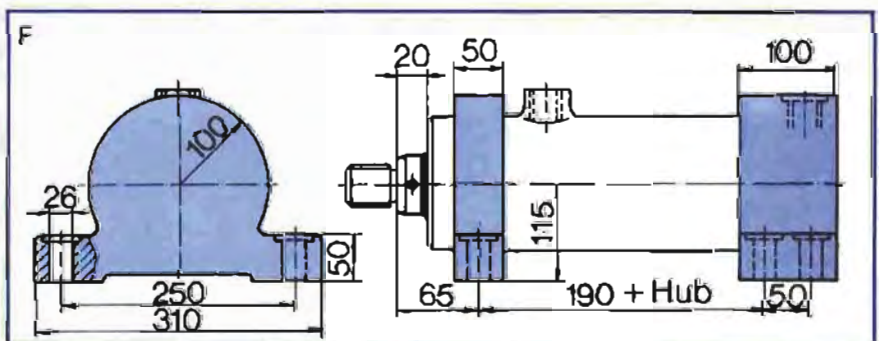
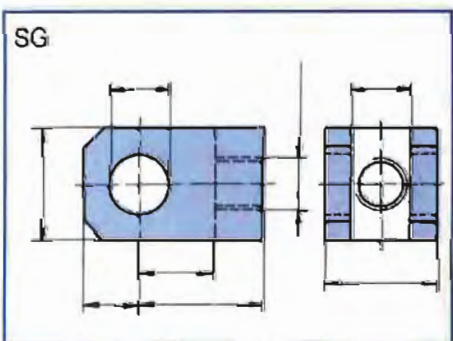
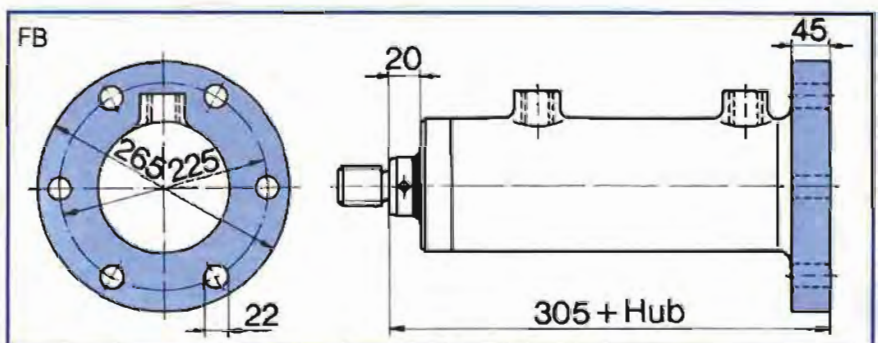
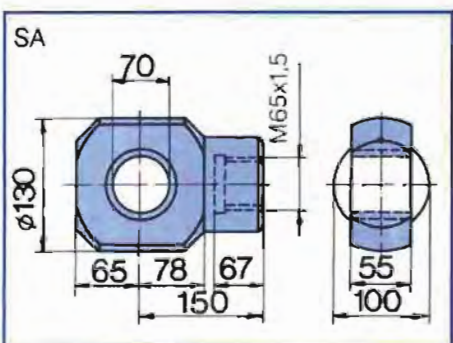
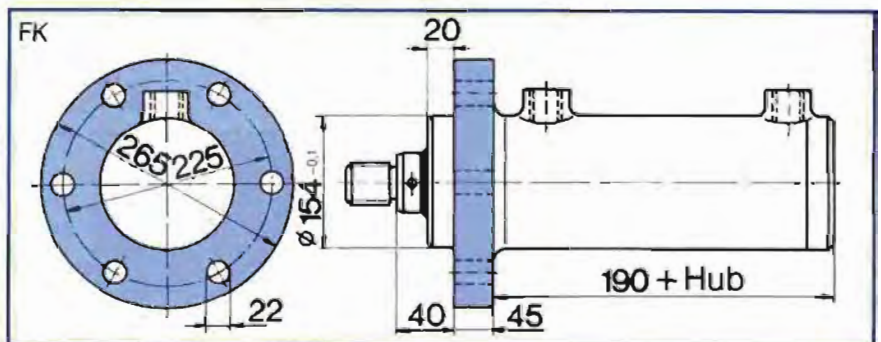
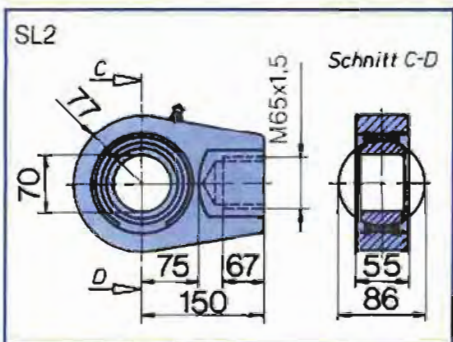
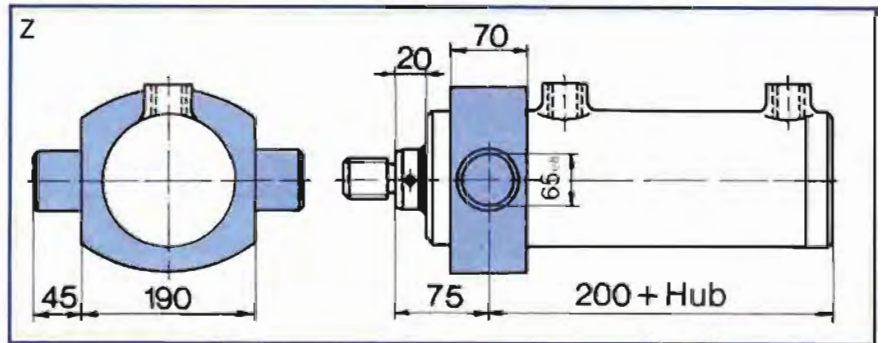
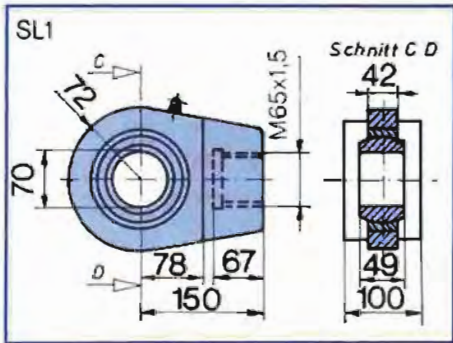
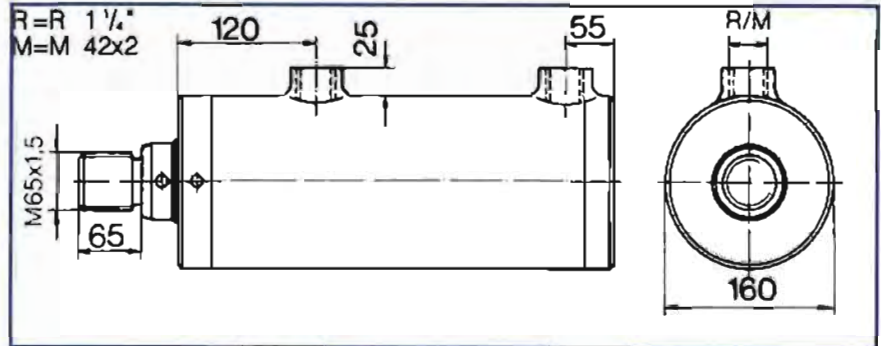
A_D [cm ²]	122,7	F_{max} [kN] 257,7
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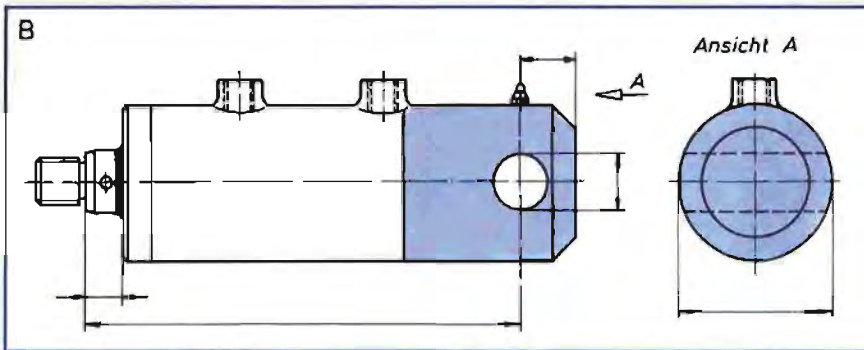
Baureihe ZEN

210 bar

Kolben \varnothing 140	
Stangen \varnothing 90	100
A_z [cm ²]	90,3 75,4
A_D [cm ²]	153,9 F_{max} [kN] 323

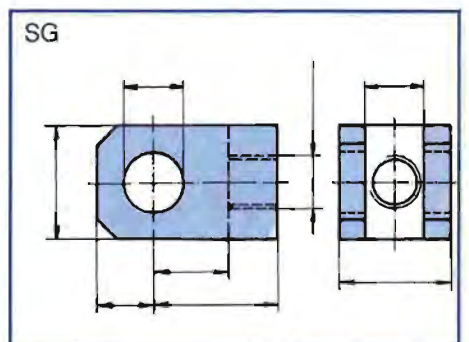
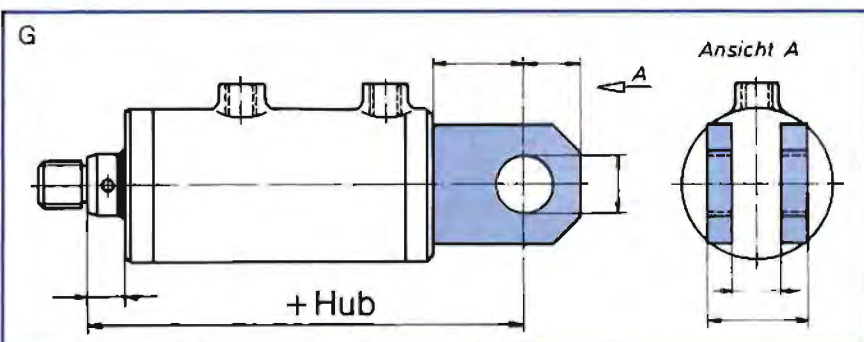
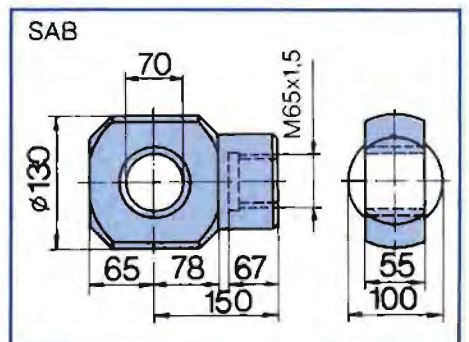
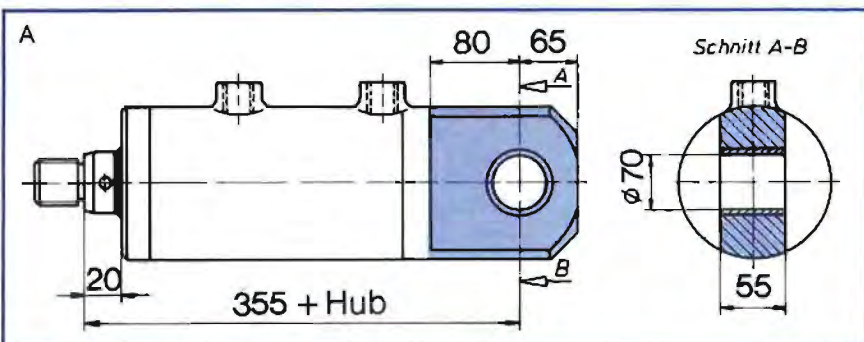
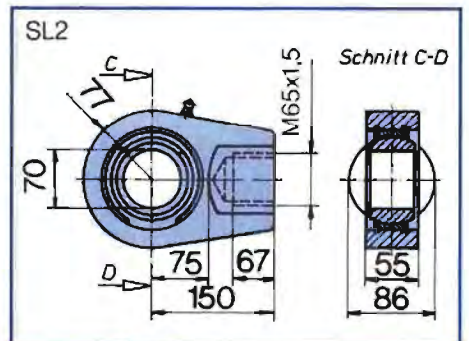
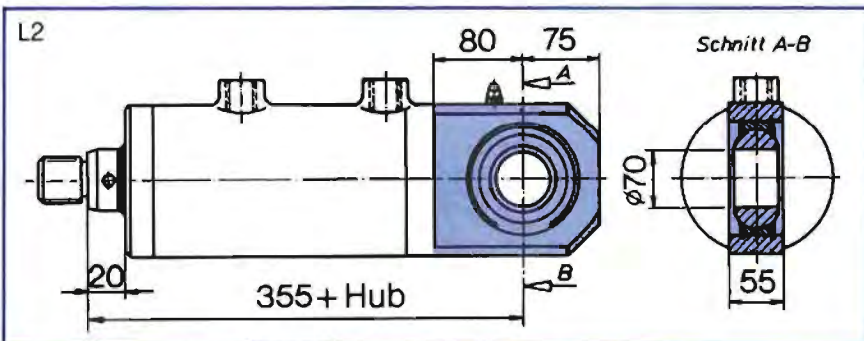
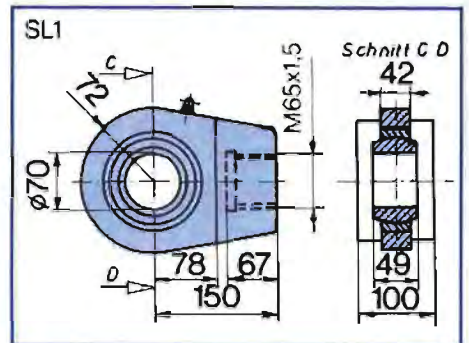
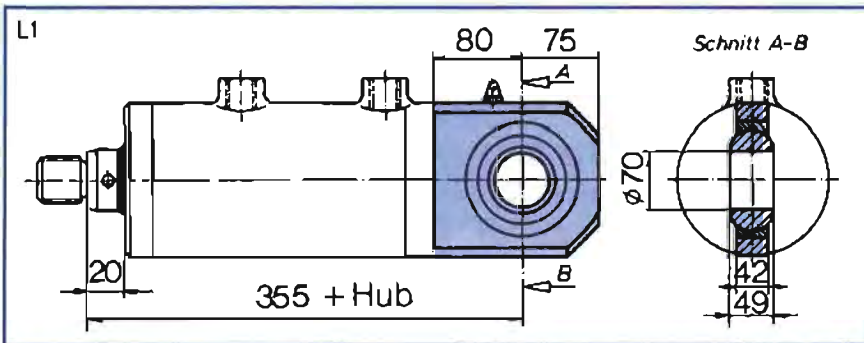


Bestellbeispiel: Hydro-Zylinder mit Schwenkauge an beiden Seiten, Anschlußgewinde in Zollabmessung:
ZEN 140x100x485 Hub / A-SA-R



Kolben \varnothing 140

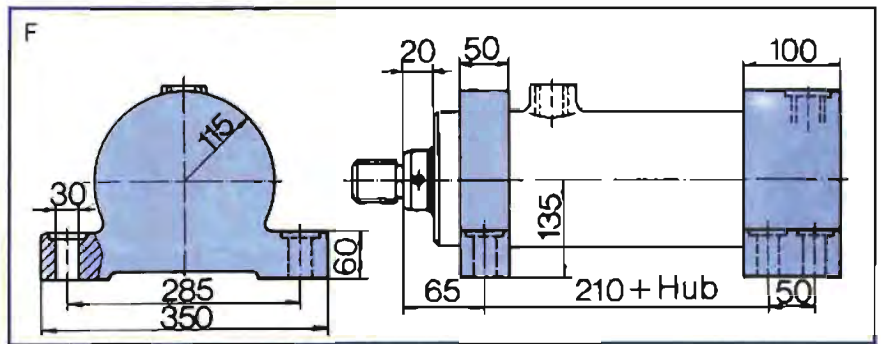
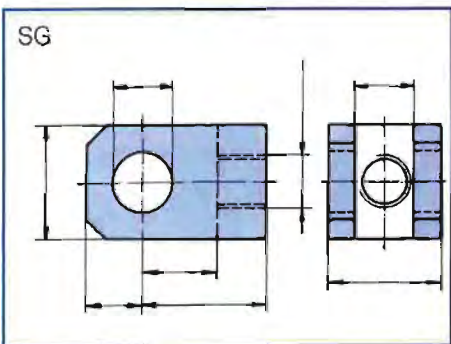
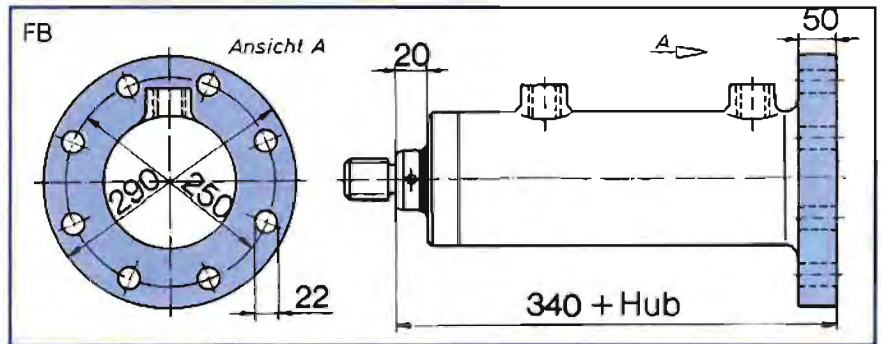
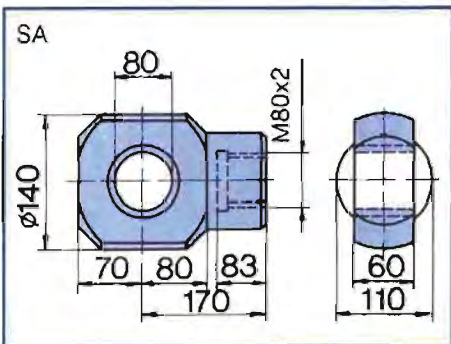
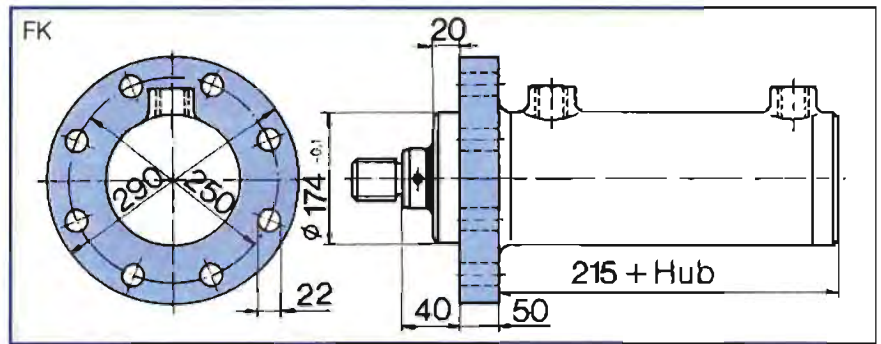
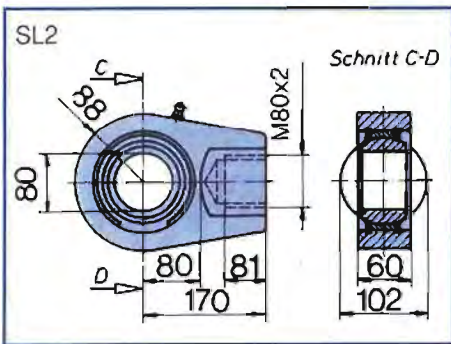
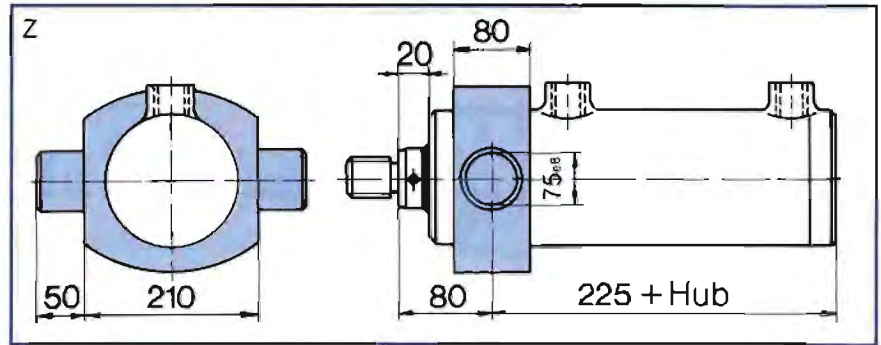
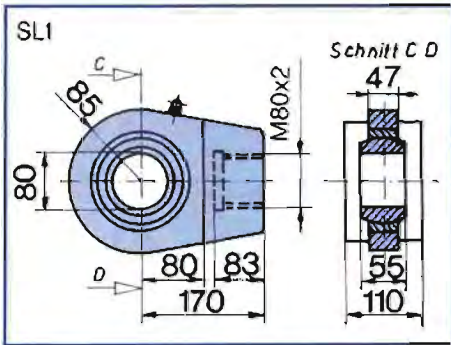
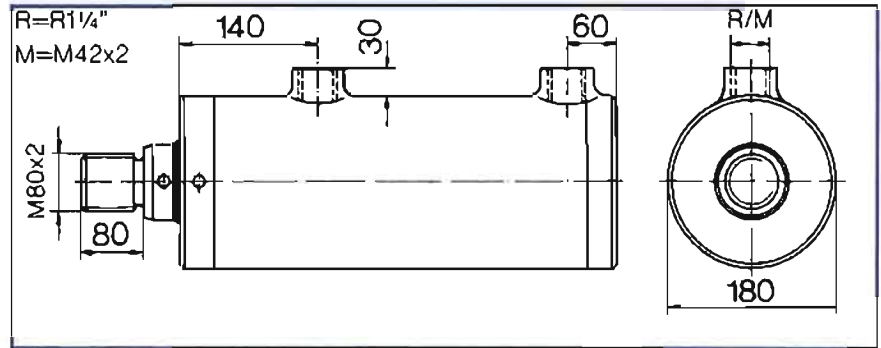
Stangen \varnothing	90	100
A_z [cm ²]	90,3	75,4
A_D [cm ²]	153,9	F_{max} [KN] 323



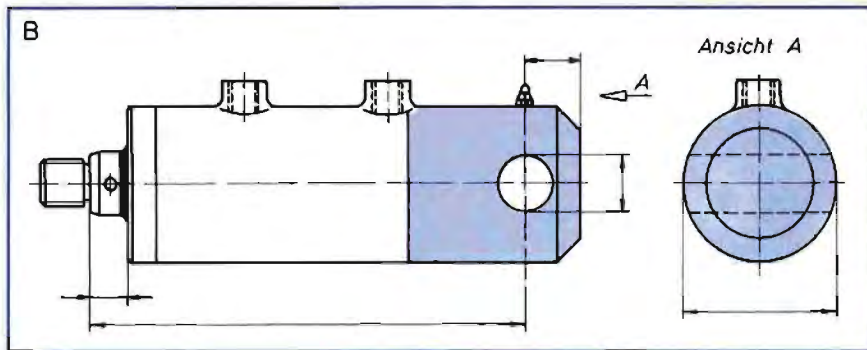
Baureihe ZEN

210 bar

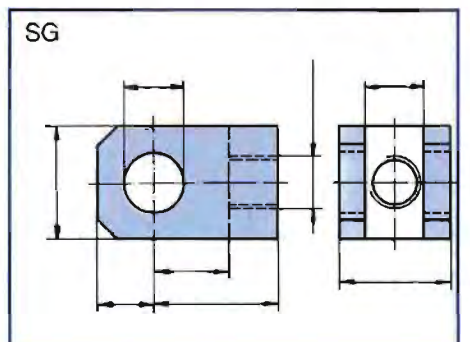
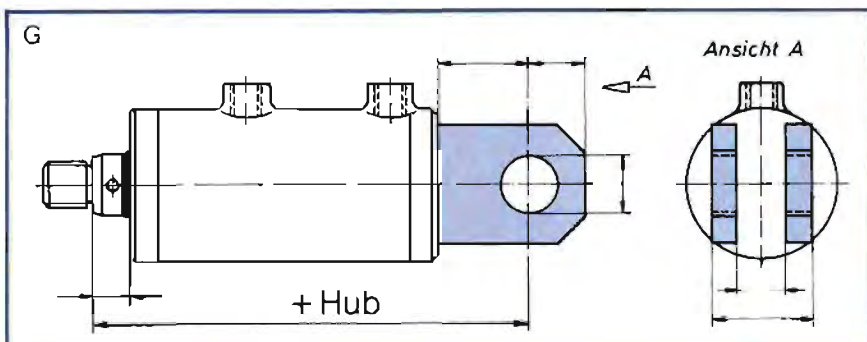
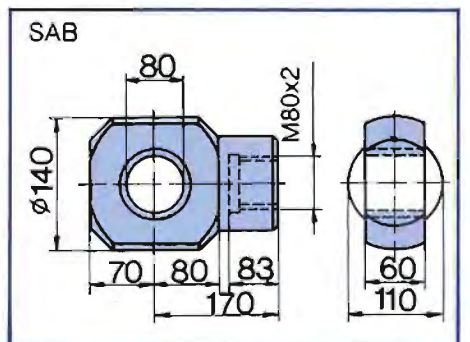
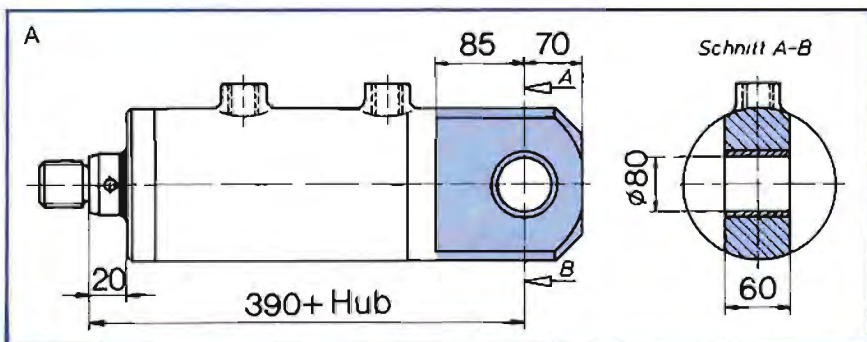
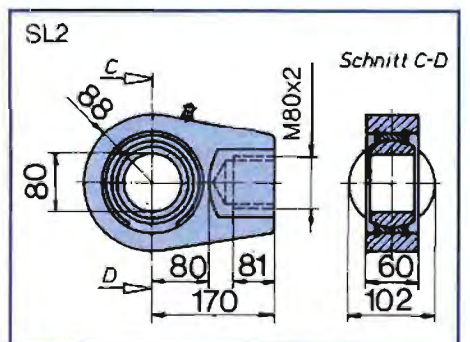
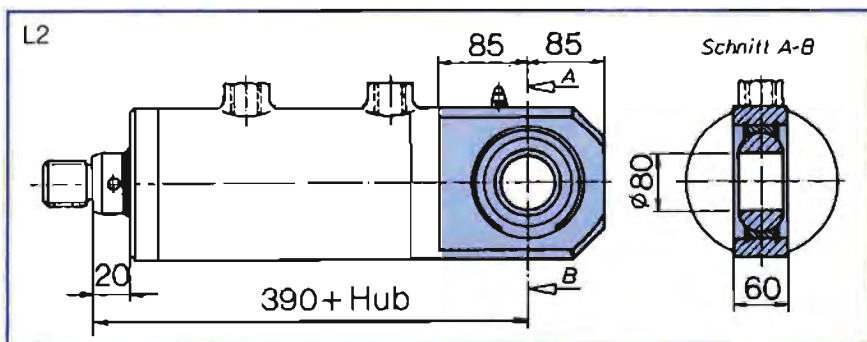
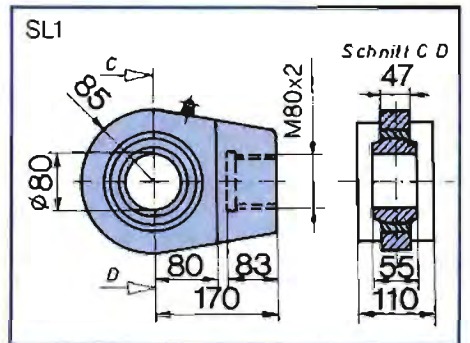
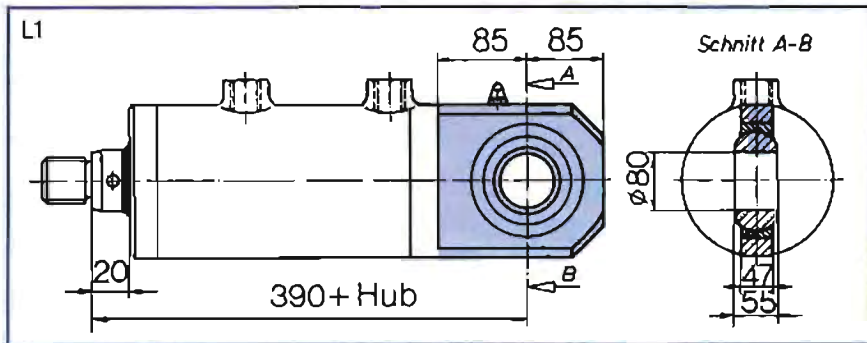
Kolben ϕ 160	
Stangen ϕ 100	110
A_z [cm ²]	122,5 106
A_0 [cm ²]	201
F_{max} [KN]	422,2



Bestellbeispiel: Hydro-Zylinder mit Flansch am Kopf und Gabelkopf an der Kolbenstange, Anschlußgewinde in Zollabmessung: ZEN 160x110x525 Hub / FK-SG-R

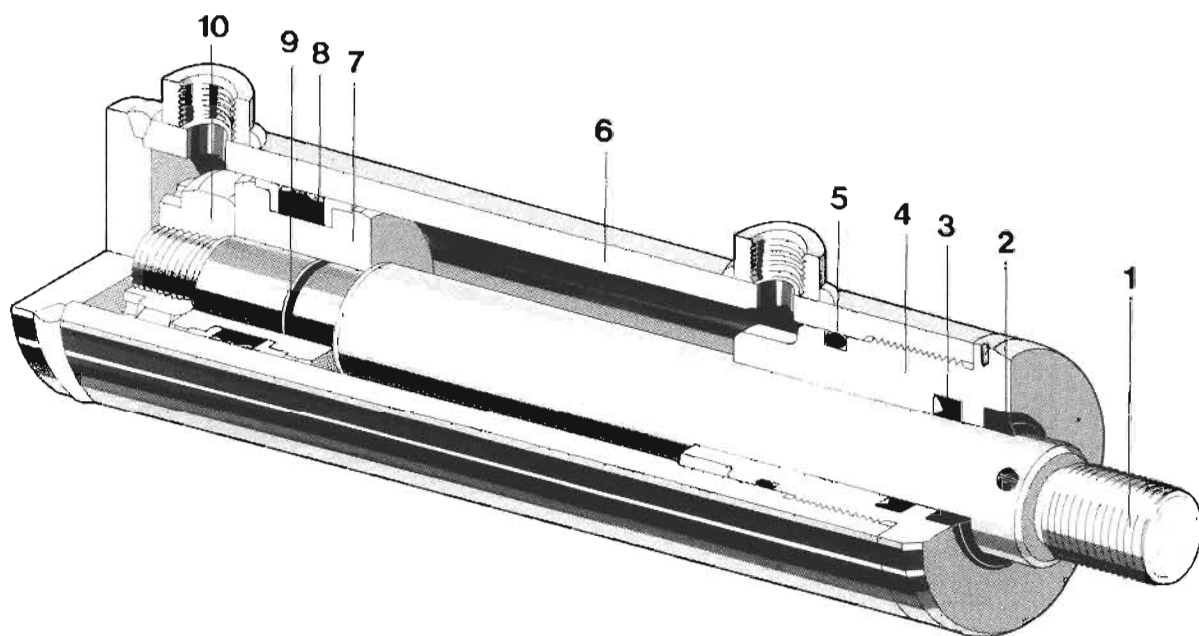


Kolben \varnothing 160		
Stangen \varnothing	100	110
A_z [cm ²]	122,5	106
A_D [cm ²]	201	F_{max} [kN] 422,2



Schnittzeichnung

ZEN



1. Kolbenstange
2. Abstreifer
3. Nutring
4. Führung
5. O-Ring

6. Zylinderrohr komplett
7. Kolben
8. Kompaktdichtung
9. O-Ring
10. Mutter