

AQ70 Cylinder for water hydraulics



Dimensions

AQ70 is a double acting hydraulic cylinder made entirely of stainless materials, designed for tap water as hydraulic fluid. Standard cylinder diameters from $\varnothing 25$ mm up to and including $\varnothing 80$ mm.

Application

Typically used within food industry, fishing industry, environmental technology and wherever water-based operation is required. The cylinder design is simple and robust ensuring long service life in adversely affected environments.

Cylinder Tube

Seamless stainless steel tube, quality W.St. 1.4301, Ra max.0.1 micron. Internal tolerance H9. The cylinder tube is also available in acid proof material W.St. 1.4401.

Piston Rod

Centerless-polished stainless steel, quality W.St. 1.4460 hard chromed min. 20 micron. Temper, min. 850 HV . Ra max. 0.3 micron. External tolerance h9

Piston Rod Speed

Max. speed 0.2 m/s.

Seals

Piston

SSH type AQ70.

Piston rod

SSH type AQ70.

Scraper

Double acting nitril rubber

Connections

Cylindrical pipe thread BSP

Operation pressure

70 bar, max. 140 bar.

Operation temperature

Temperature range: $+1^{\circ}$ to $+50^{\circ}$ C

Pressure fluid

Tap water

Test

Pressure tested at 150 bar.



Dimensioner

AQ70 er en dobbeltvirkende hydraulik cylinder fremstillet i rustfrie materialer beregnet til drift med vand (lednings vand). Standard cylinderdiameter fra $\varnothing 25$ mm til og med $\varnothing 80$ mm.

Anvendelse

Anvendes typisk indenfor levnedsmiddel-industri, fiskeri, miljøteknik og i øvrigt, hvor der kræves drift med vand. Cylinderne er af enkel robust konstruktion, der sikrer lang levetid i belastede miljøer.

Cylinderrør

Sømløst rustfrit stålør, kvalitet W.St. 1.4301, Ra max.0,1 mikron. Indvendig tolerance H9. Cylinderrøret leveres også i syrefast materiale W.St. 1.4401

Stempelstang

Centerless-slebet rustfrit stål, kvalitet W.St. 1.4460, hårdforkromet min. 20 mikron. Hårdhed, min. 850 HV . Ra max. 0,3 mikron. Udvendig tolerance h9.

Stempelstangshastighed

Max. hastighed 0,2 m/s.

Pakninger

Stempelpakning

SSH type AQ70

Stempelstang

SSH type AQ70

Afstryger

Dobbeltvirkende nitrilgummi

Tilslutninger

Cylindrisk rørgvind BSP

Driftstryk

70 bar, max. 140 bar

Driftstemperatur

Temperaturområde: $+1^{\circ}$ til $+50^{\circ}$ C

Trykmedie

Vand (ledningsvand)

Test

Tryktestet ved 150 bar

AQ70 Cylinder for water hydraulics



Position Sensing Equipment

Magnetic Field Sensor

System based on internal, piston fitted magnets and external sensors.

For further information see page 4.1 or enter our homepage:

www.ssh-stainless.dk/ *Magnetic Field Sensor*

Integrated Sensors

Built-in, contactless positioning sensor. Analogue or digital output signal.

For further information see page 5.1 or enter our homepage:

www.ssh-stainless.dk/ *Special Cylinders*.



Positioneringsudstyr

Magnetfelt sensor

Systemet er baseret på indvendigt stempel monterede magneter og udvendige sensorer.

For yderligere information se side 4.1 eller besøg vores hjemmeside:

www.ssh-stainless.dk/ *Magnetic Field Sensor*

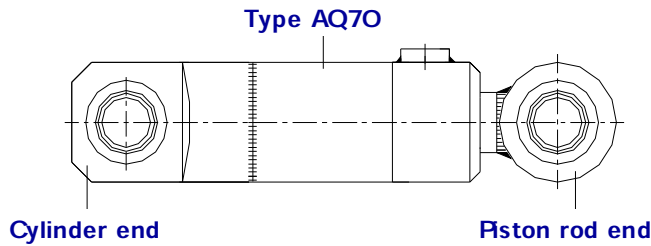
Indbygget positionsføler

Berørings-løs positionsføler med enten analogt eller digitalt signal.

For yderligere informationer se side 5.1 eller besøg vores hjemmeside:

www.ssh-stainless.dk/ *Special Cylinders*

Standard ends for cylinder and piston rod



The ends and bearings for the cylinder and piston rod may be combined according to requirements.

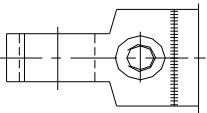
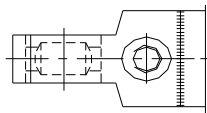
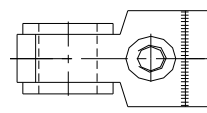
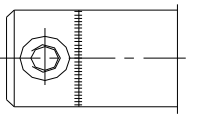
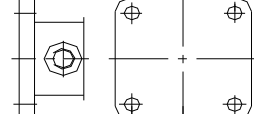
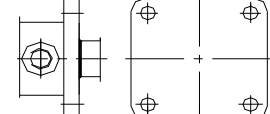
If the chosen combination is not to be found under the shown cylinder types, you can either combine the shown ends for cylinders or contact us for further information.



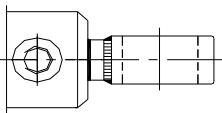
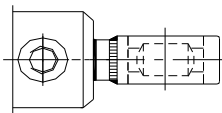
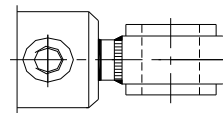
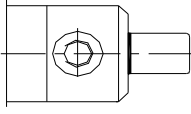
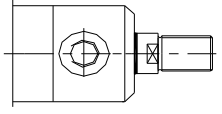
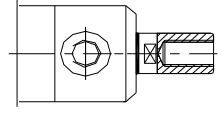
De illustrerede cylinder og stempelstangs ophæng kan frit kombineres i henhold til ønske.

Hvis den ønskede kombination ikke findes under de viste cylindertyper, kan man enten kombinere de viste cylinderophæng eller kontakte os for yderligere information.

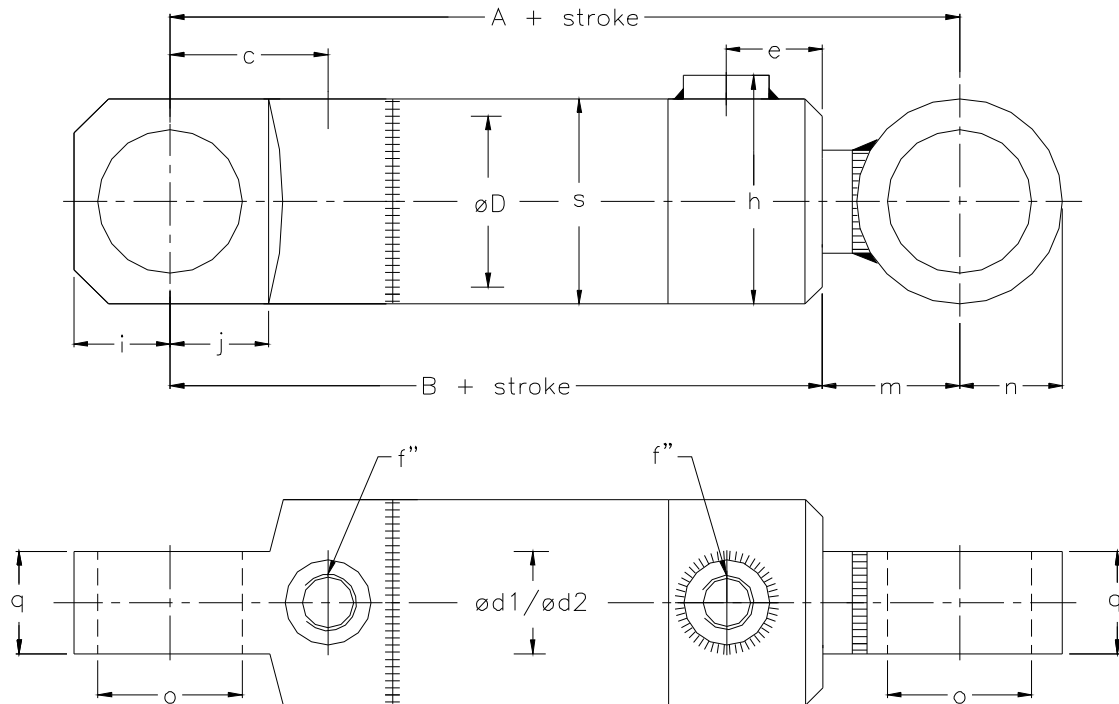
Cylinder ends

<p>V: Standard eye</p>  <p>V: Fast øje</p>	<p>L: Spherical bearing</p>  <p>L: Sfærisk ledleje</p>	<p>N: Nylon bushing</p>  <p>N: Nylon bøsning</p>
<p>O: Flat end</p>  <p>O: Glat ende</p>	<p>F: Bottom flange</p>  <p>F: Bundflange</p>	<p>H: Front flange</p>  <p>H: Frontflange</p>

Piston rod ends

<p>Z: Standard eye</p>  <p>Z: Fast øje</p>	<p>L: Spherical bearing</p>  <p>L: Sfærisk ledleje</p>	<p>N: Nylon bushing</p>  <p>N: Nylon bøsning</p>
<p>O: Flat end</p>  <p>O: Glat ende</p>	<p>D: External thread</p>  <p>D: Udvendigt gevind</p>	<p>P: Internal thread</p>  <p>P: Indvendigt gevind</p>

AQ70 VZ cylinders



Dimension table

ØD	25	32	40	50	63	80
ød1/ød2	12	16	25	30	40	50
A	140	170	185	217	245	285
B	105	139	152	177	200	233
c	20	24	29	28	38	50
e	26	29	30	33	39	39
f''	1/8"	1/4"	1/4"	3/8"	3/8"	1/2"
h	40	53	58	68	75	100
i	12	18	25	28	35	40
j	13	18	23	32	35	38
m	35	31	33	40	45	52
n	14	19	25	30	35	45
o	15	26	35	42	47	60
q	15	20	25	30	35	45
s	30	40	50	60	75	95

How to order:



AQ70 VZ **x1** / **x2** * **x3**

x1: Inside diameter : 50 mm
x2: Piston rod : 30 mm
x3: Stroke : 200 mm

Ordering code: **AQ70 VZ 50/30* 200**

Eksempel på ordre:

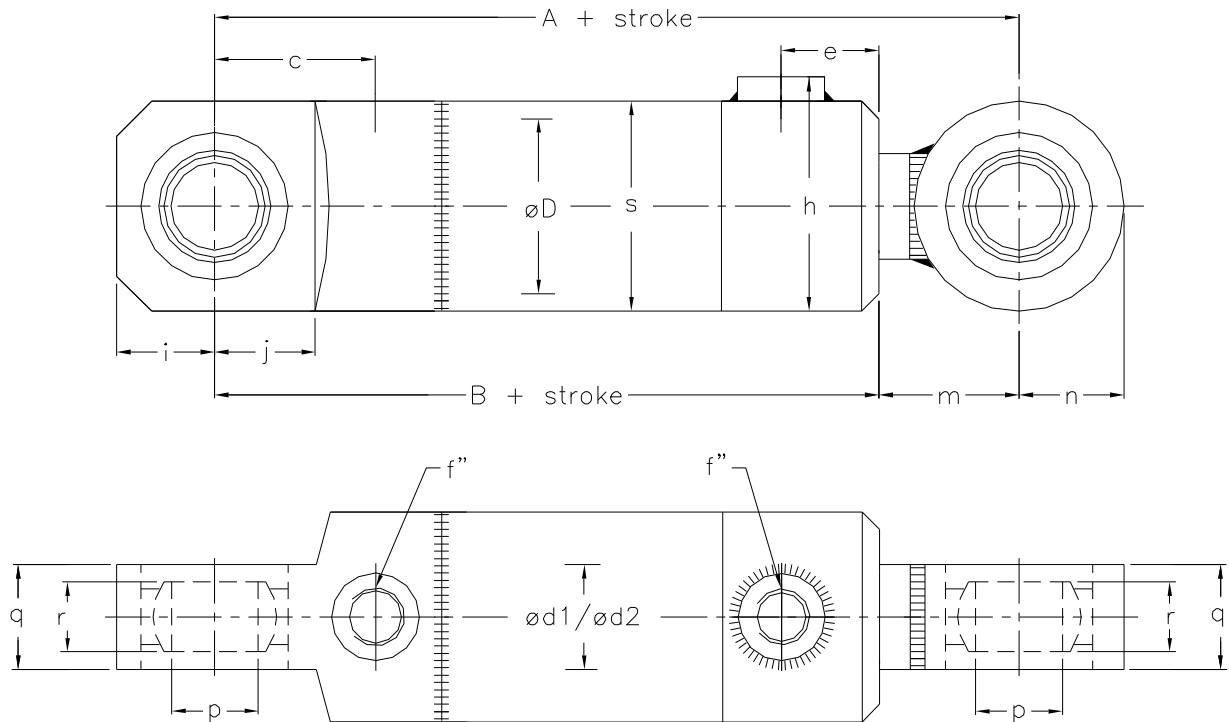


AQ70 VZ **x1** / **x2** * **x3**

x1: Indvendig diameter : 50 mm
x2: Stempelstang : 30 mm
x3: Slaglængde : 200 mm

Ordre kode: **AQ70 VZ 50/30* 200**

AQ70 LL cylinders



Dimension table

$\varnothing D$	32	40	50	63	80
$\varnothing d1/\varnothing d2$	16	25	30	40	50
A	170	185	217	245	285
B	126	150	177	180	233
c	24	29	28	38	50
e	29	30	33	39	42
f''	1/4"	1/4"	3/8"	3/8"	1/2"
h	53	58	68	75	100
i	18	25	28	35	40
j	18	23	32	35	38
m	31	33	40	45	52
n	19	25	30	35	45
p	15	20	25	30	35
q	20	25	30	35	45
r	15	16	20	22	35
s	40	50	60	75	95

How to order:



AQ70 LL **x1** / **x2** * **x3**

x1: Inside diameter : 50 mm
x2: Piston rod : 30 mm
x3: Stroke : 200 mm

Ordering code: **AQ70 LL 50/30* 200**

Eksempel på ordre:

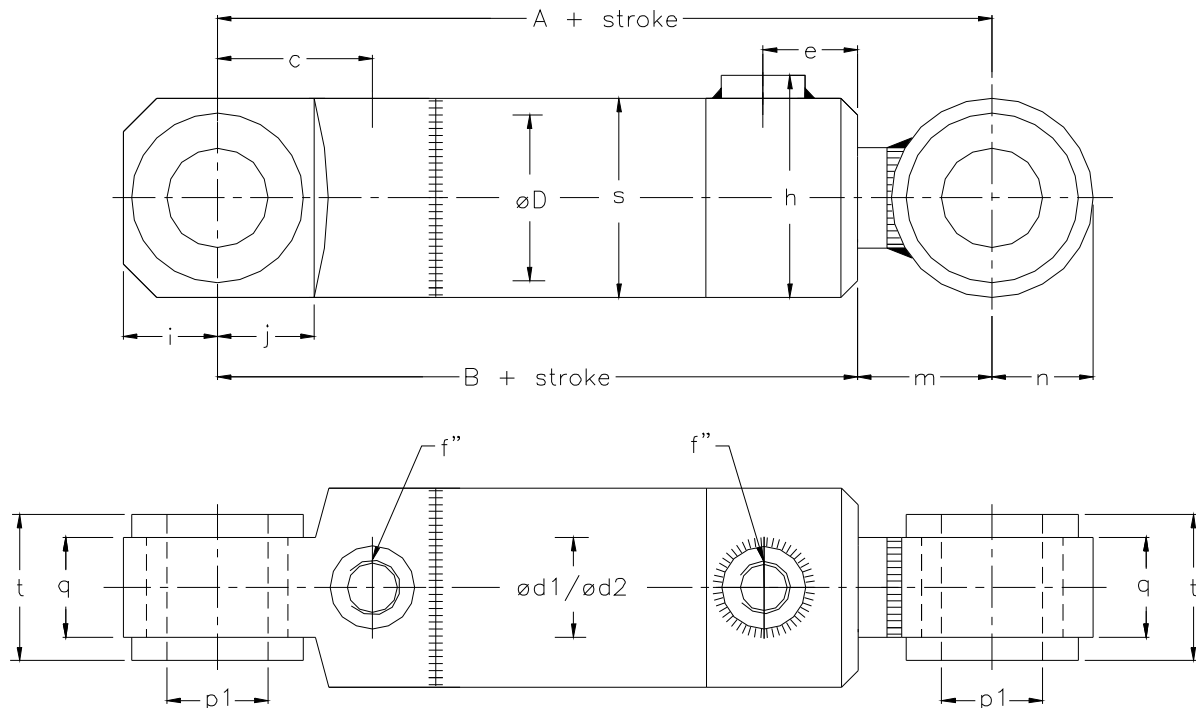


AQ70 LL **x1** / **x2** * **x3**

x1: Indvendig diameter : 50 mm
x2: Stempelstang : 30 mm
x3: Slaglængde : 200 mm

Ordre kode: **AQ70 LL 50/30* 200**

AQ70 NN cylinders



Dimension table

øD	25	32	40	50	63	80
ød1/ød2	12	16	25	30	40	50
A	140	170	185	217	245	285
B	105	139	152	177	200	233
c	20	24	29	28	38	50
e	26	29	30	33	39	39
f''	1/8"	1/4"	1/4"	3/8"	3/8"	1/2"
h	40	53	58	68	75	100
i	12	18	25	28	35	40
j	13	18	23	32	35	38
m	35	31	33	40	45	52
n	14	19	25	30	35	45
p1	10	15	20	30	30	35
q	15	20	25	30	35	45
s	30	40	50	60	75	95
t	15	20	35	44	50	60

How to order:



AQ70 NN **x1** / **x2** * **x3**

x1: Inside diameter : 50 mm
x2: Piston rod : 30 mm
x3: Stroke : 200 mm

Ordering code: **AQ70 NN 50/30* 200**

Eksempel på ordre:

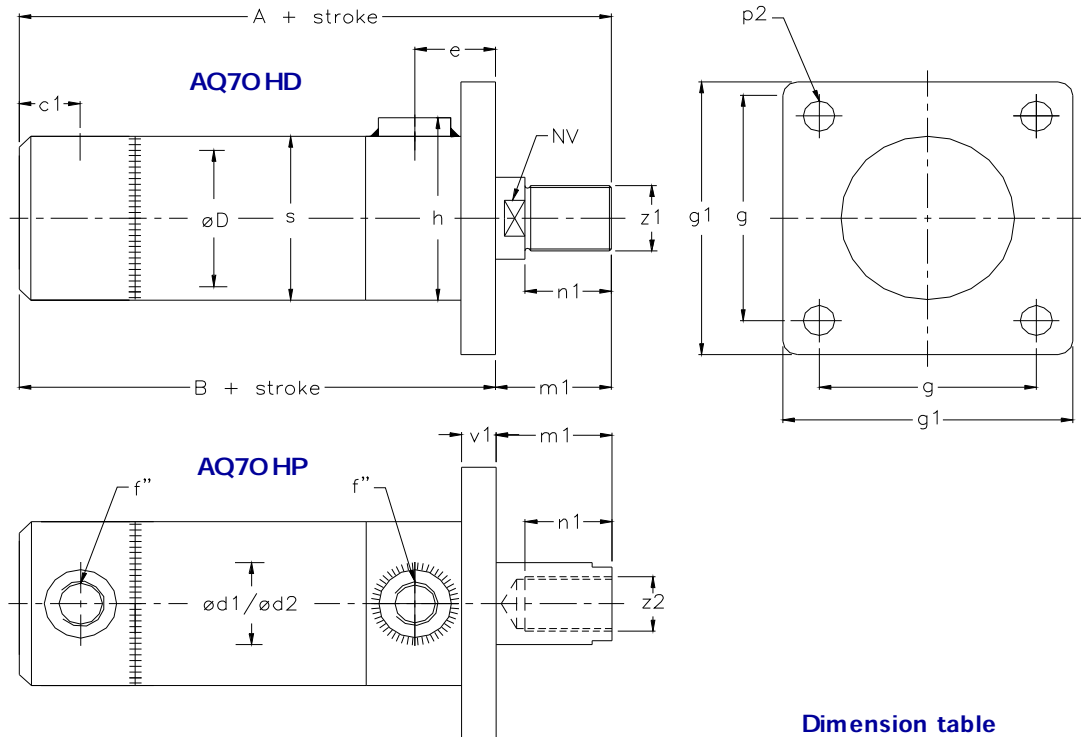


AQ70 NN **x1** / **x2** * **x3**

x1: Indvendig diameter : 50 mm
x2: Stempelstang : 30 mm
x3: Slaglængde : 200 mm

Ordre kode: **AQ70 NN 50/30* 200**

AQ70 HD and HP cylinders



Dimension table

øD	25	32	40	50	63	80
ød1/ød2	12	16	25	30	40	50
A	133	166	176	213	229	269
B	98	131	141	173	184	209
c1	13	16	17	21	22	26
e	26	29	30	33	39	39
f''	1/8 "	1/4 "	1/4 "	3/8 "	3/8 "	1/2 "
g	50	50	65	75	85	110
g1	70	70	90	100	120	140
h	40	53	58	68	75	100
m1	35	35	35	40	45	60
n1	25	25	25	30	35	40
NV	10	13	22	27	36	42
p2	9	9	11	11	14	14
s	30	40	50	60	75	95
z1	M10x1,5	M12x1,75	M22x2,00	M24x1,50	M36x2,00	M36x2,00
z2	M8x1,25	M8x1,25	M16x2,00	M20x2,50	M24x2,00	M24x2,00
v1	8	9	9	11	15	18

How to order:



AQ70 HD x1 / x2 * x3

x1: Inside diameter : 50 mm
 x2: Piston rod : 30 mm
 x3: Stroke : 200 mm

Ordering code: AQ70 HD 50/30* 200

Eksempel på ordre:

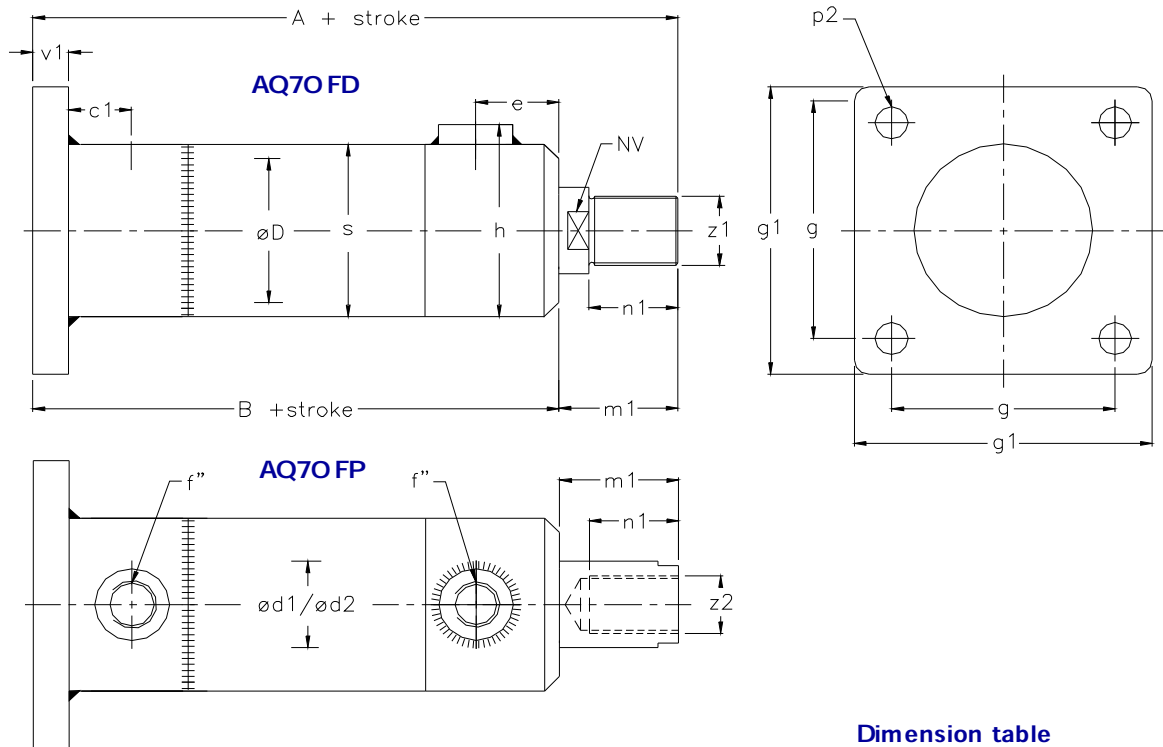


AQ70 HD x1 / x2 * x3

x1: Indvendig diameter : 50 mm
 x2: Stempelstang : 30 mm
 x3: Slaglængde : 200 mm

Ordre kode: AQ70 HD 50/30* 200

AQ70 FD and FP cylinders



Dimension table

øD	25	32	40	50	63	80
ød1/ød2	12	16	25	30	40	50
A	152	175	185	224	244	287
B	117	140	150	184	199	227
c1	13	16	17	21	22	26
e	26	29	30	33	39	39
f''	1/8 "	1/4 "	1/4 "	3/8 "	3/8 "	1/2 "
g	50	50	65	75	85	110
g1	70	70	90	100	120	140
h	40	53	58	68	75	100
m1	35	35	35	40	45	60
n1	25	25	25	30	35	40
NV	10	13	17/22	22/27	27/36	42
p2	9	9	11	11	14	14
s	30	40	50	60	75	95
z1	M10x1,5	M12x1,75	M22x2,00	M24x1,50	M36x2,00	M36x2,00
z2	M8x1,25	M8x1,25	M16x2,00	M20x2,50	M24x2,00	M24x2,00
v1	8	9	9	11	15	18

How to order:



AQ70 FD x1 / x2 * x3

x1: Inside diameter : 50 mm
 x2: Piston rod : 30 mm
 x3: Stroke : 200 mm

Ordering code: AQ70 FD 50/30* 200

Eksempel på ordre:



AQ70 FD x1 / x2 * x3

x1: Indvendig diameter : 50 mm
 x2: Stempelstang : 30 mm
 x3: Slaglængde : 200 mm

Ordre kode: AQ70 FD 50/30* 200

Magnetic Field Sensor



Cylinder with internal, piston fitted magnet

SR20 and AQ70 hydraulic cylinders with built-in magnet for position sensing.

The BMF 305 sensor is easily fitted externally on the cylinder tube by means of a stainless steel clip.

If required, several of sensors may be fitted onto the cylinder.

The BMF 305 can only be used on cylinders with piston fitted magnet.

Please notice that you have to add **12 mm** for the internal fitted magnet (**M**) to the A and B measure for all cylinders.

How to order cylinder with magnet



SR20 VZ 50/30*200 K **M**
A: 217+200+**12**=429 mm

Magnetic Field Sensor

BMF 305 with 5 meter cable and indicator LED , IP 67.



Cylinder med indvendigt monteret magnet

SR20 og AQ70 hydrauliske cylindre med indbygget magnet for positionering.

Til montering af BMF 305 sensoren hører et rustfrit spændebånd, som er let at fastgøre udvendigt på cylinderrøret.

Der kan monteres flere sensorer på cylinderen, alt efter behov.

BMF 305 magnetfeltssensor kan kun anvendes på cylindre med indvendig stempelmonteret magnet.



Bemærk, at man skal lægge **12 mm** for den indvendige monterede magnet (**M**) til A og B målet på alle cylindrerne.

Eksempel på cylinder med magnet



SR20 VZ 50/30*200 K **M**
A: 217+200+**12**=429 mm

Magnet sensor



BMF 305 med 5 meter kabel og lysdiode, IP 67.

Type	Output	Supply voltage	Current	Temperature	Cable type	Cable length
BMF 305	PNP	10-30 V.DC	200 mA	-25° to +70° C	PuFlex 3x0,14	5 meter

Bearings and Bushings



Spherical Bearings

Spherical bearings have a W.St. 1.4401 ball and a POM outer ring.

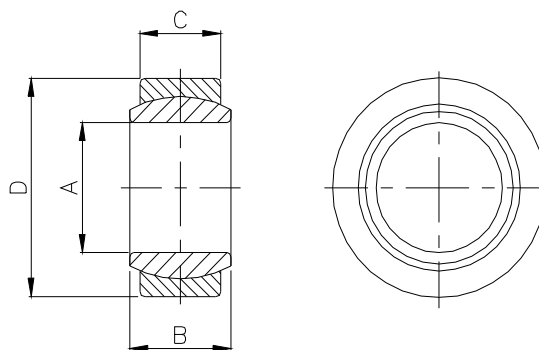


Sfæriske ledlejer og bøs



Sfæriske ledlejer

Sfæriske ledlejer fremstilles med kugle i W.St. 1.4401 med yderring i POM.



Dim.	32	40	50	63	80
A	15	20	25	30	35
B	15	16	20	22	35
C	12	12	16	18	30
D	26	35	42	47	60

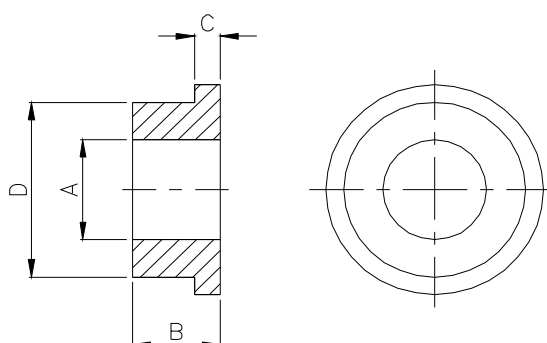
Bushing

Bushing manufactured in POM.



Nylonbøs

Bøs fremstilles i POM.



Dim.	25	32	40	50	63	80
A	10	15	20	30	30	35
B	15	20	17	21	24	30
C	-	-	5	7	7,5	7,5
D	15	26	35	42	47	69