NIKE®
HYDRAULICS

Hydraulic cylinders

Nature has powerful forces, as can be seen in everything from astounding growth potential to might geysers. NIKE works on nature's conditions and uses hydraulics to convert nature's forces to working force.

Hydraulics – flexible technology with built-in natural forces

Hydraulic cylinders

NIKE HYDRAULICS AB develops, manufactures and markets high pressure hydraulics for flexible system solutions, adapted to meet user needs and based on a wide standard range of pumps and cylinders.

NIKE industrial hydraulics are employed by users worldwide in various industries such as processing, mining, aerospace, construction and shipbuilding, the transport business and others. The range includes hydraulic pumps, cylinders and a comprehensive selection of accessories, push and pull kits, pullers and power tools such as spreaders and cutting tools.

In cooperation with OEM-customers, NIKE HYDRAULICS AB also develops special designed products and original equipment tailored to customers needs and requirements.

We are certified according to ISO 9001 and ISO 14001. We also have CE-marked products that meet the standards of the Machine Directive.

NIKE cylinders handle tough work in rugged environments.

Capacity and stroke for all jobs.

Specially designed cylinders for the automotive industry.

Cylinders – small surface, lots of power

NIKE's cylinders are designed for tough work in rugged environments. The range of use is wide and varied, and the cylinders are used everywhere there's a need to pull, press or lift.

NIKE's cylinders are used worldwide in all kinds of environments. A few examples are the automotive industry, mining and petro-chemical industries.

There is a comprehensive **standard range** with varying stroke and capacity.We also have a wide selection of accessories.

We are pleased to tailor cylinders according to customer needs, something that gives flexible solutions and next to unlimited lift capacity. Effective tools for everything from small precision work to lifting 500 ton bridge sections.

NIKE's designs are based on long experience of hydraulics, resulting in cylinders that are easy to repair and service – saving both time and money. The pistons are hard chromium-plated, making them wear resistant and free from proof.

NIKE's products have long lives. Our cylinders provide sustained power for generations.

Selection of a cylinder is controlled by the work operation in question, the required power, stroke and installation dimension for the cylinder.

Consideration should also be given to add-on possibilities for different accessories extension pipes, push heads, etc. If there is existing hydraulic equipment, cylinders should be selected based on the equipment's pressure range for maximal flexibility and economy. We're pleased to offer you our knowledge and solutions.

All NIKE-cylinders have

- Hard chromium-plated lift pistons, giving a hard and protective surface.
- Zinc-coated cylinder barrels for high corrosion resistance.
- Mechanical stop for piston.

All cylinders are available with two types of quick-couplings:

- Quick-coupling male of plug-in model.
- Quick-coupling female, screw fitting.

When ordering cylinders with screw fitting, add ''P'' at the end of the model designation.Example: CFC1014P.

CF/CFU - Single acting push cylinders with spring return

CF cylinders are real work horses within NIKE's cylinder product range. They are, for example, part of our push- and pull-kits (for more information, please see separate product information). The cylinders are prepared for accessories to be connected at the piston top or at the bottom of the cylinder.

CF cylinders are available with capacities at 5 ton, 10 ton or 25 ton and stroke lengths between 127 mm - 300 mm.

There are also CF cylinders available with extra long piston pin (CFU - models).

Name	Working press. MPa	Capacity kN (t)	Stroke mm	Stroke volume cm³	Piston ø mm	Piston area cm²	Diameter mm	Height mm	Weight kg
CF104	70	49 (5)	127	90	26.5	7.1	37.5	266	1.7
CF204	70	49 (5)	200	142	26.5	7.1	37.5	339	2.4
CF110C	70	111 (11)	150	239	38	15.9	56.5	321	4.7
CF210C	70	111 (11)	200	318	38	15.9	56.5	372	5.5
CF310C	70	111 (11)	300	477	38	15.9	56.5	474	7
CF120	70	232 (24)	127	422	60	33.2	84	337	10.2
CF220	70	232 (24)	200	664	60	33.2	84	410	12.4
CF320	70	232 (24)	300	996	60	33.2	84	510	16
CFU2010C	70	111 (11)	200	318	38	15.9	56.5	387	5.3
CFU2510C	70	111 (11)	250	398	38	15.9	56.5	437	6

CFA - Aluminium cylinders with spring return

NIKE's high tonnage cylinders CFA ranging from 50 t capacity are made of aluminium. This gives them an outstanding performance comparing power and weight (c:a 50% more power per kilogram than comparable cylinders made of steel). The cylinders are made of high tensile aluminium and therefore have a superior service life compared to similar products on the market today. Both cylinder tube and piston are hard anodized for extended protection against wear and corrosion.

All CFA cylinders come with both the saddle and a protecting base plate made of steel to guarantee a trouble free function even when the surface and lifting point are not quite even and parallel.

Note! *The NIKE range of aluminium cylinders is manufactured for low-cycle applications such as normal maintenance and lifting operations. These aluminium cylinders are designed to provide a lifetime of at least 10.000 cycles at full pressure and should NOT be used in high-cycle operations like production lines etc.*

For such applications please talk to your NIKE representative for advise.

Name	Max. working press. MPa	Capacity kN (t)	Stroke mm	Stroke volume cm³	Piston ø mm	Piston area cm²	Diameter mm	Height mm	Weight kg
CFA250-100	70	230 (23)	100	332	60	33.2	100	212	4.4
CFA250-200	70	230 (23)	200	664	60	33.2	100	312	5.9
CFA500-100	70	500 (51)	100	709	85	70.9	140	224	9.2
CFA500-200	70	500 (51)	200	1418	85	70.9	140	324	12.7
CFA750-100	70	730 (74)	100	1039	100	103.9	170	235.5	14
CFA750-200	70	730 (74)	200	2078	100	103.9	170	335.5	18.3
CFA1000-100	70	930 (95)	100	1327	110	132.7	190	243	18.4
CFA1000-200	70	930 (95)	200	2655	110	132.7	190	343	24.7

CFC - Single acting, compact push cylinders with spring return

- Scrapers of polyurethane, positioned so that dirt can't penetrate in between piston rod and cylinder.
- Can be equipped with all kinds of NIKE accessories

CFC cylinders are real all-round cylinders. There are a large number of different CFC cylinders available with different characteristics such as capacity, stroke or height, which will meet your requirements. They have a compact design and a long stroke. The design gives small installation dimensions. CFC cylinders are provided with scrapers to keep the piston free from dirt.

Available in capacities ranging from 5 ton to 100 ton. Models of 5 t, 10 t, 15 t and 25 t can be equipped with an adapter for accessories.

Name	Working press MPa	Capacity kN (t)	Stroke mm	Stroke volume cm³	Piston ø mm	Piston area cm²	Diameter mm	Height mm	Weight kg
CFC51	70	49 (5)	27	19	25	7	38	110	0.8
CFC53	70	49 (5)	77	55	25	7	38	165	1.2
CFC55	70	49 (5)	127	90	25	7	38	216	1.5
CFC57	70	49 (5)	181	128	25	7	38	273	1.9
CFC59	70	49 (5)	232	165	25	7	38	324	2.2
CFC101	70	111 (11)	25	40	38	16	57	90	1.5
CFC102	70	111 (11)	54	86	38	16	57	121	2
CFC104	70	111 (11)	105	167	38	16	57	171	2.7
CFC106	70	111 (11)	155	247	38	16	57	247	4
CFC108	70	111 (11)	206	328	38	16	57	298	4.6
CFC1010	70	111 (11)	257	409	38	16	57	349	5.3
CFC1012	70	111 (11)	305	485	38	16	57	400	6
CFC1014	70	111 (11)	356	566	38	16	57	451	6.8
CFC151	70	166 (17)	25	59	48	24	70	124	3
CFC152	70	166 (17)	51	121	48	24	70	149	3.5
CFC154	70	166 (17)	101	240	48	24	70	200	4.5
CFC156	70	166 (17)	152	361	48	24	70	272	6.5
CFC158	70	166 (17)	203	482	48	24	70	322	7.5
CFC1510	70	166 (17)	254	603	48	24	70	373	8.5
CFC1512	70	166 (17)	305	725	48	24	70	424	9.5
CFC1514	70	166 (17)	356	846	48	24	70	475	10.9
CFC251	70	232 (24)	25	83	60	33	85	140	5.1
CFC252	70	232 (24)	51	169	60	33	85	165	5.9
CFC254	70	232 (24)	101	335	60	33	85	216	7.7
CFC256	70	232 (24)	159	528	60	33	85	273	9.7
CFC258	70	232 (24)	209	694	60	33	85	324	11.5
CFC2510	70	232 (24)	260	863	60	33	85	375	13.3
CFC2512	70	232 (24)	311	1032	60	33	85	426	15
CFC2514	70	232 (24)	362	1201	60	33	85	476	17
CFC502	70	496 (51)	53	376	80	71	127	176	16
CFC504	70	496 (51)	104	737	80	71	127	227	19
CFC506	70	496 (51)	159	1127	80	71	127	282	23
CFC5013	70	496 (51)	337	2389	80	71	127	460	35
CFC756	70	727 (74)	155	1610	100	104	146	282	30
CFC7513	70	727 (74)	333	3459	100	104	146	492	48
CFC1006	70	929 (95)	168	2230	100	133	175	359	54
CFC10010	70	929 (95)	260	3451	100	133	175	450	65

CL - Low profile push cylinders without spring return

- Small installation dimensions.
- Provided with holes for fastening.
- Exchangeable hardened push head.

CL- cylinder is the right choice for those who need small and compact installation dimensions. Threaded holes for fastening makes it easy to integrate the cylinder into different kinds of applications.

Name	Working press. MPa	Capacity kN (t)	Stroke mm	Stroke volume cm^3	Piston ø mm	Piston area cm^2	Diameter mm	Height mm	Weight kg
CL50-25	70	49 (5)	25	18	26	7.1	39	60	0.7

CLF - Low profile push cylinders with spring return

CLF cylinders are the right choice for those who need flexible cylinders with small installation dimensions. With capacities ranging from 5 ton to 200 ton, there are lifting forces for all jobs. Threaded fastening hole makes it easy to integrate them in different applications.

Within the CLF series there is NIKE's smallest cylinder: CLF50-10. This cylinder is only 37 mm tall but has a amazing lifting capacity at 5 t. Because of their rather heigh weight, cylinders CLF670-45 and CLF1100-40 are equipped with a carrying handle, which can be taken off when needed.

Name	Working press. MPa	Capacity kN (t)	Stroke mm	Stroke volume cm^3	Piston ø mm	Piston area cm^2	Diameter mm	Height mm	Weight kg
CLF50-10	70	50 (5)	10	7.1	24	7.1	60	37	0.6
CLF110-10	70	111 (11)	10	15.9	35	15.9	80	43	1.5
CLF110-30	70	111 (11)	28	44.5	35	15.9	65	75	1.8
CLF220-13	70	218 (22)	13.5	42.1	50	31.2	100	50	2.6
CLF220-50	70	218 (22)	50	156	50	31.2	85	107	3.9
CLF450-15	70	445 (45)	15	95.4	60	63.6	134	68	6.4
CLF450-40	70	445 (45)	40	254.4	60	63.6	120	120	8.8
CLF670-15	70	665 (68)	15	142.5	80	95	146	78	9.2
CLF670-45	70	665 (68)	45	427.5	80	95	146	130	14.3
CLF1100-15	70	1078 (110)	15	231	100	154	180	90	17
CLF1100-40	70	1078 (110)	40	616	100	154	180	140	23.7
CLF1500-15	70	1498 (153)	15	321	125	214	220	100	28
CLF2000-16	70	1985 (202)	16	454	140	284	250	110	40

CX - Single acting push cylinders

CX-series cylinder with 220 (250*) ton lifting capacity. It is especially designed to withstand off-center loads; we have equipped it with extra large, also patented, piston guides.

The CX250-100 is a single acting cylinder with load return. On request we can offer it in a double acting configuration and also other stroke lengths.

CX-series are approved for working pressures up to 80 MPa (800 bar).

Name	Working press. MPa	Capacity kN (t)	Stroke mm	Stroke volume cm³	Piston ø mm	Piston area cm²	Diameter mm	Height mm	Weight kg
CX250-100	80	2513 (256)	100	3140	180	314	250	285	76

CSF - stainless steel single acting cylinders with spring return

- CSF-cylinders are available in sizes from 11 (13*) to 88 (100*) ton lifting capacity and 50 to 200 mm stroke.
- CSF-cylinders cope with off-center loads better than conventional cylinders.
- The cylinder tube is manufactured from stainless steel and the piston is hard chrome plated.

All CSF-cylinders are as standard equipped with spring return, piston wiper and quick coupling. Type CSF350 and larger have a carrying handle as well.

***At 80 MPa (800 bar), CSF-series are approved for working pressures up to 80 MPa (800 bar).**

Name	Max. working pressure MPa	Capacity kN (t) at 70MPa	Capacity kN (t) at 80MPa	Stroke mm	Stroke vol. cm³	Piston ø mm	Piston area cm²	Diameter mm	Height mm	Weight kg
CSF110-50	80 (800)	111 (11)	127 (13)	50	80	45	15,9	58	134	2,3
CSF110-100	80 (800)	111 (11)	127 (13)	100	159	45	15,9	58	184	3,0
CSF110-150	80 (800)	111 (11)	127 (13)	150	238	45	15,9	58	234	3,7
CSF220-25	80 (800)	218 (22)	249 (25)	25	78	63	31,2	80	115	3,7
CSF220-50	80 (800)	218 (22)	249 (25)	50	156	63	31,2	80	140	4,4
CSF220-100	80 (800)	218 (22)	249 (25)	100	312	63	31,2	80	190	5,9
CSF220-150	80 (800)	218 (22)	249 (25)	150	467	63	31,2	80	240	7,3
CSF220-200	80 (800)	218 (22)	249 (25)	200	623	63	31,2	80	290	8,7
CSF350-50	80 (800)	352 (36)	402 (41)	50	241	80	50,2	105	146	8,5
CSF350-100	80 (800)	352 (36)	402 (41)	100	502	80	50,2	105	196	11,0
CSF350-200	80 (800)	352 (36)	402 (41)	200	1005	80	50,2	105	296	15,6
CSF550-50	80 (800)	550 (56)	628 (64)	50	393	100	78,5	130	160	14,0
CSF550-100	80 (800)	550 (56)	628 (64)	100	785	100	78,5	130	210	17,7
CSF550-200	80 (800)	550 (56)	628 (64)	200	1570	100	78,5	130	310	24,9
CSF860-50	80 (800)	859 (88)	982 (100)	50	613	125	122,6	160	183	23,7
CSF860-100	80 (800)	859 (88)	982 (100)	100	1227	125	122,6	160	233	28,9
CSF860-200	80 (800)	859 (88)	982 (100)	200	2453	125	122,6	160	333	39,3

CH/CHF - Single acting hollow cylinders made of steel

CH/CHF cylinders can be used for both push and pull operations thanks to the through-hole. For example, by inserting a rod through the cylinder, the push force can also be used for pulling operations.

CH/CHF cylinders have a capacity of 6 t and because CH/CHF cylinders are very compact in size, these cylinders are easy to integrate in different kinds of applications. The CHF62 model is, to the opposite of the CH62 model, equipped with spring return. Both models can easily be equipped with different kinds of accessories.

Name	Working press MPa	Capacity kN (t)	Stroke mm	Hole diam. mm	Stroke volume cm^3	Piston ø mm	Piston area cm^2	Diameter mm	Height mm	Weight kg
CH62	70	61 (6)	51	17	44.7	30	8.8	55	110	1.6
CHF62	70	61 (6)	51	17	44.7	30	8.8	55	136	2
CH30-50	80	327 (33)	50	35	204	63	40,8	108	141	8,0
CH50-40	80	500 (51)	40	37	260	74	62.6	124	124	9.2

CHFA - Single acting aluminium hollow cylinders with spring return

The CHFA series consists of cylinders made in aluminium. This makes the products up to 50% lighter than equivalent models made in steel. Thanks to the design with a centre hole the hollow cylinders can be used for both push- and pulling-operations.

CHFA cylinders are available in capacities from 12 ton up to 100 ton, hydraulic stroke up to 150 mm.

Note! *The NIKE range of aluminium cylinders is manufactured for low-cycle applications such as normal maintenance and lifting operations. These aluminium cylinders are designed to provide a lifetime of at least 10.000 cycles at full pressure and should NOT be used in high-cycle operations like production lines etc.*

For such applications please talk to your NIKE representative for advise.

Name	Working press. MPa	Capacity kN (t)	Stroke mm	Hole diam. mm	Stroke volume cm^3	Piston ø mm	Piston area cm^2	Diameter mm	Height mm	Weight kg
CHFA132	70	123 (13)	52	22	92	40	17.6	80	165	2.3
CHFA136	70	123 (13)	153	22	270	40	17.6	80	310	4
CHFA182A	70	176 (18)	51	26	128	45	25.1	94	171	3
CHFA184A	70	176 (18)	102	26	256	45	25.1	94	246	4
CHFA262	70	255 (26)	51	32	186	60	36.4	115	180	4.9
CHFA266	70	255 (26)	153	32	557	60	36.4	115	323	8.7
CHFA372	70	358 (36)	51	39	261	70	51.2	136	189	6.9
CHFA376	70	358 (36)	153	39	784	70	51.2	136	327	12
CHFA504	70	508 (52)	104	51	756	80	72.7	160	276	14.7
CHFA673	70	659 (67)	77	54	726	100	94.2	185	250	18
CHFA676	70	659 (67)	153	54	1442	100	94.2	185	350	25
CHFA1003	70	1010 (103)	77	66	1111	120	144.3	227	284	29
CHFA1006	70	1010 (103)	153	66	2208	120	144.3	227	391	40

CD - Double acting cylinders

CD double acting cylinders are used when force is needed also during the piston's return movement. The CD cylinders' push forces range from 45 ton to 200 ton, and pull forces range from 25 ton to 80 ton.

CD1100 - these models are provided with external thread M180x3.
CD2000 - the model's max. working pressure is 80 MPa.

All cylinders are designed for a max. working pressure of 70 MPa (in case there are some exceptions, these will be mentioned in the text above).

Name	Capacity		Stroke	Stroke volume		Piston	Piston area		Diameter	Height	Weight
	push kN (t)	pull kN (t)	mm	push cm^3	pull cm^3	ø mm	push cm^2	pull cm^2	mm	mm	kg
CD450-75	445 (45)	247 (25)	75	477	265	60	64	36	130	150	13.5
CD670A-150	665 (68)	313 (32)	150	1425	672	80	95	45	146	300	34
CD1100A-100	1077 (110)	285 (29)	100	1539	408	120	154	41	180	297	55
CD1100A-150	1077 (110)	285 (29)	150	2309	614	120	154	41	180	353	66
CD2000-100	2035 (207)	804 (82)	150	3817	1507	140	255	100	250	300	105

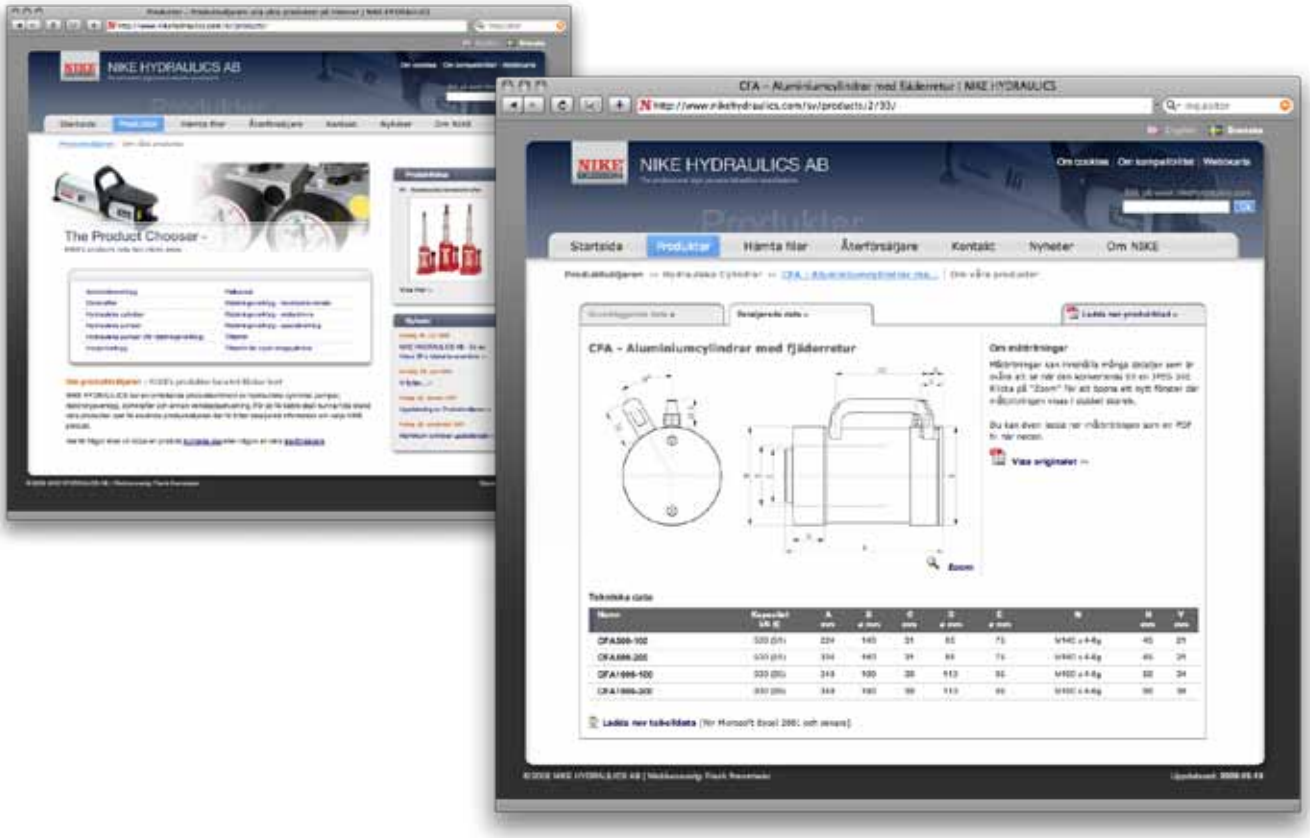
CPF - Pull cylinders

CPF cylinders are pulling cylinders with 5 ton or 11 ton capacity. Both models are part of NIKE's push and pull kits (refer to separate product information for more information) and have threads in the piston pin and cylinder bottom for connection of accessories. CPF cylinders are used when a pulling force is needed for alignment of welded constructions, for example.

Name	Working press.	Capacity	Stroke	Stroke volume	Piston	Piston area	Diameter	Height	Weight
	MPa	kN (t)	mm	cm^3	ø mm	cm^2	mm	mm	kg
CPF705	70	45 (5)	125	80	20	6	48	412	2.4
CPF709	70	110 (11)	127	199	32	16	70	436	5.9

More information - www.nikehydraulics.com

On our web page we have gathered important information about our cylinders and other products from NIKE's product range. Here you can find information on dimensions, accessories, applications and much more.



See also these other brochures

Hydraulic pumps

- One-stage hand pumps
- Two-stage hand pumps
- Air/hydraulic pumps
- Electrical hydraulic pumps
- Petrol motor pumps

Accessories

- Hoses
- Swivel couplings
- Quick couplings
- Manifold blocks
- Valves
- Gauges and adapters
- Cylinder accessories
- Cylinder mountings
- C clamps

NIKE HYDRAULICS AB

Since 1924 we have been developing, manufacturing and marketing high-pressure hydraulic products for industrial, automotive and rescue applications. With our head quarter in Eskilstuna, Sweden we deliver high pressure hydraulics worldwide. Overcoming limitations and developing smart solutions are equally important in finding the road to success.

NIKE HYDRAULICS stands for quality, reliability, service and design. Our products are marketed all over the world, and Europe is our largest market. We have subsidiaries in the USA and UK. Besides this, we have partners in more than 70 different countries all around the world, to ensure that you receive the best service as possible where ever you are.

NIKE HYDRAULICS AB
P.O. Box 1107
SE-631 80 Eskilstuna, SWEDEN
Tel + 46 16 16 82 00
Fax + 46 16 13 93 16
info@nikehydraulics.se

NIKE HYDRAULICS INC
3980 W. Albany, Unit #1
MCHENRY, IL 60050, USA
Phone +1 815 385 7777
Fax +1 815 385 7776
info@nikehydraulics.com

NIKE POWER EQUIPMENT LTD
Unit 6, Stechford Trading Estate
Lyndon Road, Stechford
BIRMINGHAM B33 8BU, UK
Tel + 44 121 789 77 07
Fax + 44 121 789 68 66
info@nikehydraulics.co.uk

www.nikehydraulics.com

www.nikehydraulics.com

Keep up-to-date by visiting NIKE HYDRAULICS on the Internet. On our pages you will always find the latest information about our products, contact information to your local NIKE dealer, dates of upcoming exhibitions, downloadable catalogues and much more.

Our website is being updated continuously. Furthermore, the services provided on the site are under constant development.

Visit us at **http://www.nikehydraulics.com**

FA/1006 60081 Broschure Hydraulic cylinders ENG 6. Edition Xerox DC700