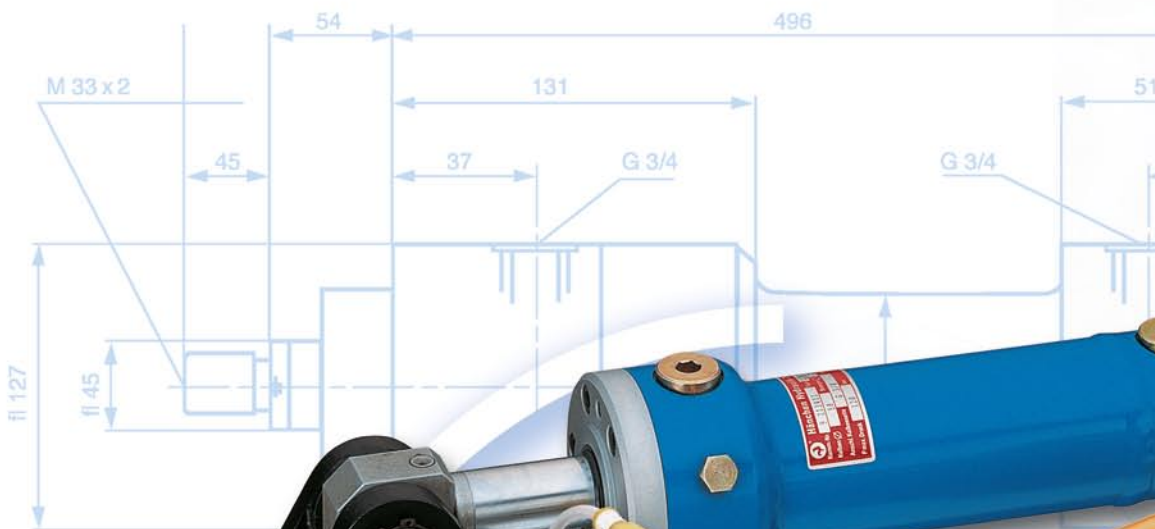




HÄNCHEN®

HYDRAULIC CYLINDERS

- Hänchen standard cylinders
- Hänchen normalised cylinders
- with proximity sensors



... simply good.

The finest way to treat hydraulic cylinders: Hänchen quality



Everyone who has heard of Hänchen is aware that its world-wide reputation is based on hydraulic cylinder solutions that are anything but standardised. The standardisation per se actually deals with nothing more than basic dimensions and connections, mounting parts etc. Indeed for this or that solution, the choice of a standard cylinder will often do the job without any problems. Upon closer inspection however, one will draw his/her own conclusions from what is an obvious difference and reconsider, because the standard Hänchen cylinder – by virtue of its size alone – offers advantages which tip the balance in its favour.

Inside, outside – it's all there: right down to the last screw. With the decision in favour of Hänchen hydraulic cylinders, the exhaustive and expensive development of mounting

parts or procurement difficulties are relegated to a thing of the past. Hänchen delivers a wide range of mounting part products, including the attendant accessories:

- Feet mounting
- Rod eyes with spherical plain bearing, with male or female threads
- Rod clevises
- Plain rod eyes
- Threaded flanges, with male or female threads
- Balls
- Trunnion mountings
- Brackets for trunnion mountings
- Brackets for swivel-bearing mountings
- Round or square-type mounting flanges
- Venting set
- „Minimess“ miniature coupling
- Hook wrench



There is no norm for quality

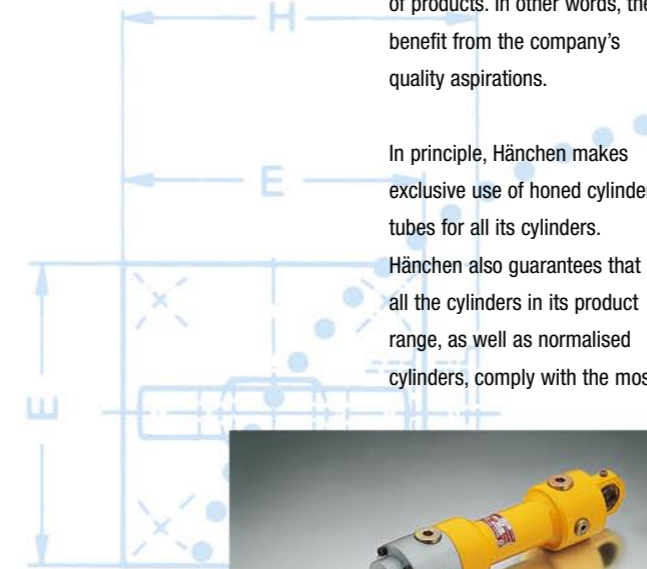
As far as Hänchen is concerned there is no reason to look to another quality standard other than its own for its normalised cylinders in the Hänchen range of products. In other words, they benefit from the company's quality aspirations.

In principle, Hänchen makes exclusive use of honed cylinder tubes for all its cylinders.

Hänchen also guarantees that all the cylinders in its product range, as well as normalised cylinders, comply with the most

exact of geometrical accuracies.

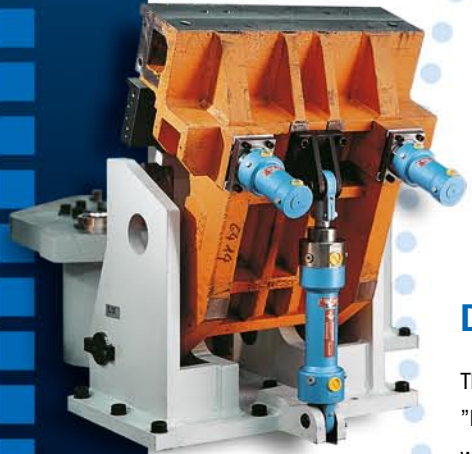
In technical terms this means: the piston rods are covered with a particularly thick chromium coating (hard-chromium plated with at least 25 – 100 µm across the entire length) whereupon they are then honed again. The effort involved is indeed quite extensive, but the years of experience using this technology serve only to confirm the company's decision to use the finest materials and methods to achieve the best quality. The user therefore receives the typical quality associated with Hänchen cylinders even if normalised cylinders are to be installed.



For particularly high requirements: Servocop®

All Hänchen cylinders, including all those in the normalised series are also available in Servocop® quality in particular as low-friction versions: for extremely low piston speeds and low stick-slip movement.

Furthermore, Hänchen cylinders are also available with electronic components.



David and Goliath

They really do exist, the "Davids" ... the small people, who can hold their own with their larger counterparts. This, however, should not be interpreted to mean that there's no real need for bigger cylinders. It is not without reason that Hänchen also has a comprehensive range of normalised cylinders of the 100, 160 and 250 series alongside its series 120 and 300 cylinders which comply with Hänchen standards.

Here we have two "identical" cylinders: equally good, equally strong.

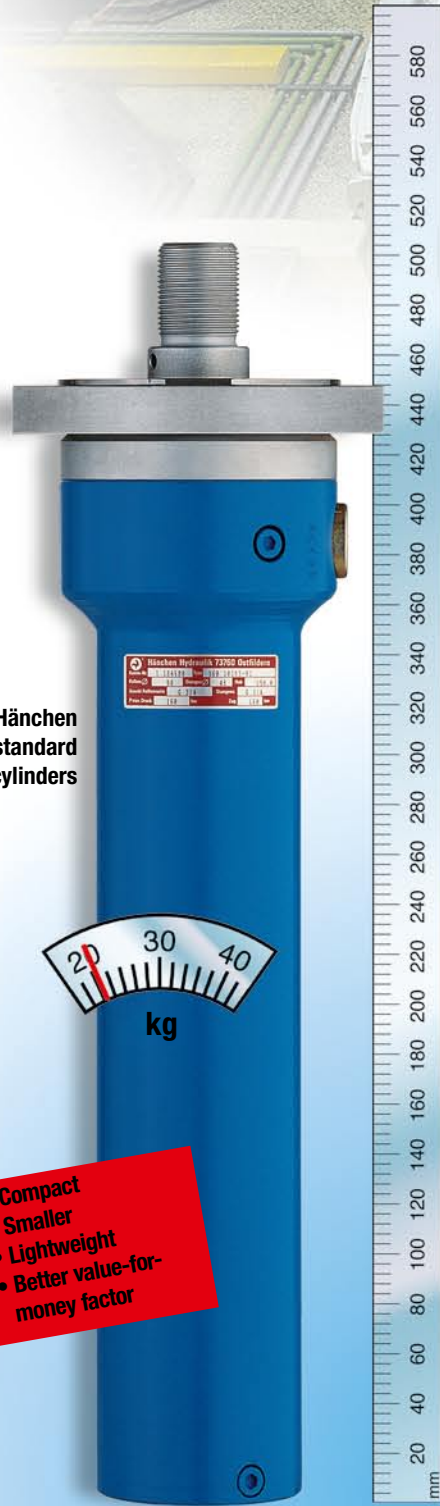
- With exceptionally long service life
- With very low wear
- With extremely low friction
- With outstanding efficiency
- With ideal availability
- With extremely long service intervals
- With service-friendly features

Where is the difference?

- Different size
- Different shape
- Unequal weight
- Divergent value-for-money factor

- Compact
- Smaller
- Lightweight
- Better value-for-money factor

Hänchen standard cylinders



Hänchen normalised cylinders



Technical data

Cylinders	Piston-Ø	Forces	Stroke up to
Standard-cylinders with/without end-position cushioning			
Serie 120 (150 bar)	12 - 600 mm	1 - 6000 kN	6000 mm
Serie 122* (150 bar)	12 - 300 mm	10 - 1500 kN	6000 mm
Standard-cylinders with/without end-position cushioning			
Serie 300 (300 bar)	25 - 600 mm	10 - 9000 kN	6000 mm
Serie 302* (300 bar)	25 - 300 mm	10 - 2500 kN	6000 mm
Normalised cylinders			
Serie 100/102* (100 bar) as under DIN 24336	25 - 200 mm	4.9 - 314 kN	6000 mm
Normalised cylinders medium			
Serie 160 / 162* (160 bar) as under DIN ISO 6020-1	25 - 200 mm	7.9 - 503 kN	6000 mm
Normalised cylinders compact			
Serie 660 / 662* (160 bar) as under DIN 24554 / ISO 6020-2	25 - 200 mm	7.9 - 503 kN	1500 mm
Normalised cylinders			
Serie 250 / 252* (250 bar) as under DIN 24333 / ISO 6022	50 - 200 mm	49 - 785 kN	6000 mm

* with proximity sensors

In comparison:

	Hänchen standard cylinders Series 120	Hänchen normalised cylinders Series 160
Piston Ø	80 mm	80 mm
Piston rods Ø	40 mm	45 mm
Operating pressure max.	150 bar	160 bar
Weight	20.4 kg	33.9 kg
Overall length	505 mm	595 mm
Useful force F ₁ at 150 bar	75.4 kN	75.4 kN
Useful force F ₂ at 150 bar	56.5 kN	51.5 kN

Ratio-Drive® – the Hänchen system solutions that are tailored-made for individual applications

Do you want to achieve specific movements and speed profiles, or to move to any given position extremely precisely and reproducibly? Ratio-Drive® from Hänchen provides you with the ready-to-use solution for such situations – plug-and-play. Ratio Drive® is a self-contained, high-performance, safe and reliable linear drive for practi-

cally any application area. It is a combination of „standardised“ components and relevant mechatronic services ranging from design, project planning, software consulting and integration into a superordinate control system right through to on-site commissioning.

Why search endlessly? The E-Kat from Hänchen contains the whole range

You need the perfect hydraulic linear drive solution, or absorbers? You require hydraulic cylinders in general mechanical engineering and special mechanical engineering or test cylinders for the simulation of real situations? In the electronic catalogue from Hänchen you will find all you need.

From individual cylinder components (normalised parts and Hänchen standards), the clamping unit Ratio-Clamp®, absorber elements and industrial shock absorbers, electronic components, proximity sensors and matching connectors as well as attachment/mounting parts to the final bolt, here you will find all components your customised solution comprises. **For your safety: all parts have undergone quality and functional tests and match perfectly.**



HÄNCHEN®

Herbert Hänchen GmbH & Co. KG
Brunnwiesenstr. 3 · 73760 Ostfildern
Postfach 4140 · 73744 Ostfildern
Fon +49 711 44139-0
Fax +49 711 44139-100
info@haenchen.de

www.haenchen.de

simply good.