



HYDRAULIC CYLINDERS

Product & Capabilities Catalogue — Edition 2026



*Bore up to Ø1,000 mm · Stroke up to 12 m · Pressure up to 400 bar
Custom-engineered cylinders delivered in under 10 weeks*

Soydan Hidrolik Teknolojileri A.Ş.

AOSB, İzmir, Türkiye · www.hydrocyl.com · info@soydanhidrolik.com

1. About this catalogue

Hydrocyl is the hydraulic cylinder brand of Soydan Hidrolik Teknolojileri A.Ş., a manufacturer of hydraulic cylinders and fluid power components based in the Atatürk Organised Industrial Zone in İzmir, Türkiye. This catalogue gives engineering, purchasing and project-management teams at OEMs and system integrators everything they typically need when evaluating a new cylinder source: our size and pressure envelope, the industries and applications we serve, our engineering and quality standards, and our track record with European customers.

Hydrocyl builds to European premium specification. Cold-drawn honed tubes from leading European mills, hard-chrome-plated rod bars from European chromed-bar specialists, and sealing only from Kastaş, Trelleborg or other European sealing brands. Every cylinder is produced under ISO 9001, ISO 14001 and ISO 45001, welded to ISO 3834-2 and inspected by NDT Level II-certified personnel, and 100% tested to ISO 10100 before leaving the factory.

What you will find in this catalogue

- Standard and custom cylinders to ISO 6020-1, ISO 6020-2 (CETOP) and ISO 6022
- Welded heavy-duty (mill-type) cylinders for iron & steel, presses and heavy industry
- Bore range up to Ø1,000 mm; strokes up to 12 m; working pressure up to 400 bar
- **Custom cylinders engineered and delivered in under 10 weeks** — from blank sheet to shipped unit, with 2D and 3D drawings for every part
- Rod options from hard chrome through induction-hardened chrome and nickel-chrome duplex to HVOF tungsten-carbide coating on project basis
- Position sensing, ATEX / IECEx variants, and fully integrated electro-hydraulic actuators
- Full engineering file (2D + 3D CAD, test report per serial number) delivered with every cylinder

2. Company at a glance



Hydrocyl production floor at AOSB, İzmir: machining, component staging, overhead crane coverage

Legal entity	Soydan Hidrolik Teknolojileri A.Ş.
Product brand	Hydrocyl
Head office & factory	AOSB 10039 Sk No:21/1, Çiğli, İzmir, Türkiye
İstanbul branch	Buyaka Kule 2, FSM Mah. Poligon Cad. No:8/C Kat:17, Ümraniye, İstanbul
Site area	5,000 m ² total (3,000 m ² covered production)
Production focus	Single-acting, double-acting, telescopic and customised special cylinders; manifolds
Management certifications	ISO 9001, ISO 14001, ISO 45001
Welding certification	ISO 3834-2 (comprehensive quality requirements for fusion welding of metallic materials)
NDT personnel	Welds inspected by NDT Level II-certified personnel
Product testing standard	ISO 10100 — 100% of production tested, certified report per unit

Export footprint

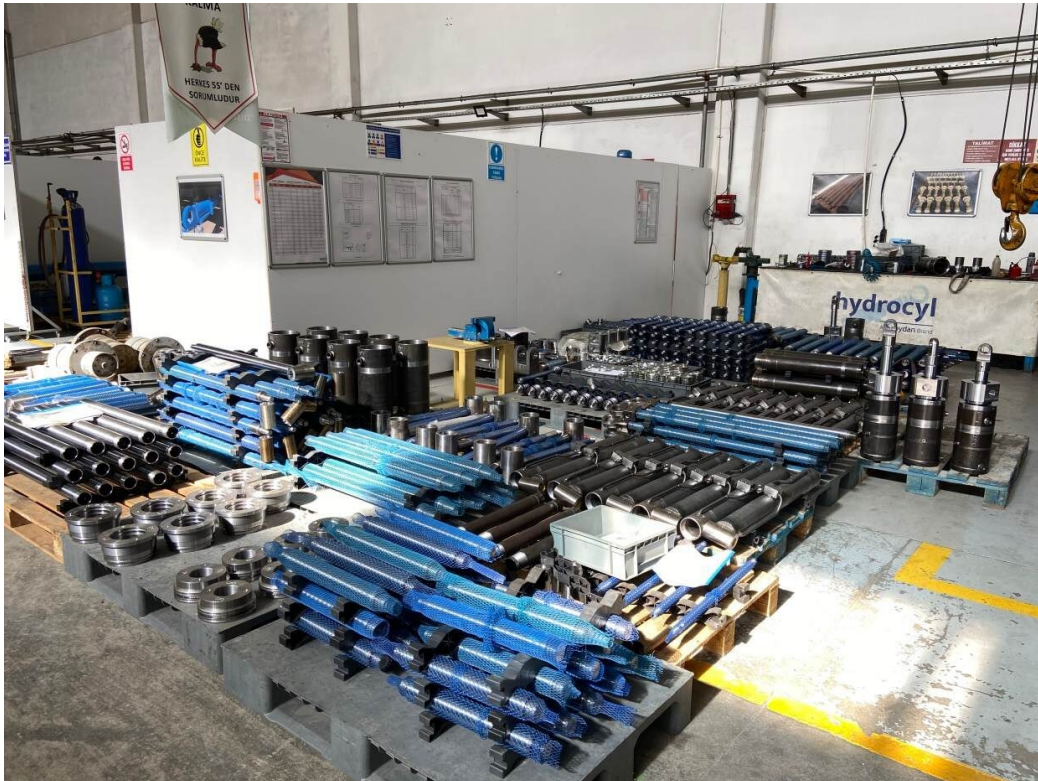
Europe (including DACH region), CIS, MENA, North Africa, Asia

2.1 Vertically integrated under one roof

Everything that determines the performance and reliability of a hydraulic cylinder is done in-house at our İzmir factory:

- All design work is performed by our own engineers, with 2D and 3D drawings produced for every single part of every cylinder
- Every part is machined in-house, or at named certified subcontractors, for cylinders up to 4 m stroke and Ø400 mm bore — larger dimensions on project basis
- Tubes are sourced ready inside-honed and rod bars ready outside-chromed from European manufacturers
- All welding processes are carried out in-house, under ISO 3834-2
- All painting processes are carried out in-house
- All assembly processes are carried out in-house
- All marking processes are carried out in-house

This architecture — own engineering plus in-house welding, painting, assembly and marking, European raw materials, and NDT Level II weld inspection — is what underpins both our quality and our ability to deliver custom cylinders from blank sheet to finished unit in under 10 weeks.



Factory floor with serial cylinder components in staging

3. Size, pressure and performance envelope

The tables below summarise Hydrocyl's standard and project capability. Standard values are regularly produced on our in-house machine park and through named certified subcontractors. Project values are quoted after engineering review.

3.1 Dimensional envelope

Parameter	Standard range	Project range	Notes
Bore (cylinder inner diameter)	Ø25 – Ø400 mm	up to Ø1,000 mm	Honed tubes, ISO H8, Ra ≤ 0.4 µm
Piston rod diameter	Ø16 – Ø280 mm	up to Ø700 mm	Chromed, ISO f7, Ra ≤ 0.25 µm
Stroke length	up to 4,000 mm	up to 12,000 mm	Buckling calculation in engineering file
Production route	In-house or named certified subcontractors	Certified subcontractors for oversized work	All welding, painting, assembly and marking remain in-house
Cylinder overall length	up to ~5,500 mm assembled	project-specific	Shipping constraints verified per project

3.2 Pressure ratings

Class	Nominal working pressure	Max working pressure	Test pressure	Typical use
ISO 6020-1 (mobile / light duty)	160 bar	210 bar	1.5× (≥315 bar)	Mobile hydraulics, construction, agriculture
ISO 6020-2 (CETOP / tie-rod)	160 bar	250 bar	1.5× (≥375 bar)	General industrial, machine tools
ISO 6022 (heavy-duty round flange)	250 bar	350 bar	1.5× (≥525 bar)	Mill type, presses, iron & steel
Welded heavy-duty (custom)	250 – 350 bar	400 bar	1.5× nominal	Metallurgy, marine, press forging
Servo / position-controlled	160 – 250 bar	250 bar	1.5× nominal	Test benches, process control

Every cylinder is 100% tested for leak-tightness at working pressure and at 1.5× working pressure per ISO 10100. Each unit ships with a signed, serialised test report.

3.3 Operating parameters

Standard fluid	Mineral oil ISO VG 32 / 46 / 68 (HLP, HL, HM)
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Compatible fluids on request	HFA / HFB / HFC / HFD fire-resistant, HEPG / HEES biodegradable, water-glycol
Standard fluid temperature	-20 °C to +80 °C
Extended temperature (special seals)	-40 °C to +120 °C (project-specific)
Maximum rod speed (standard seals)	0.5 m/s continuous; higher with low-friction seal packs
Filtration recommendation	ISO 4406 class 19/17/14 or cleaner
External surface protection	2-pack epoxy primer + PU topcoat; customer RAL codes on request
Packing & transport	Heat-treated wooden crates (ISPM-15), rod protection, ports plugged

4. Product range

Hydrocyl builds to the three international cylinder standards most commonly specified by industrial and mobile OEMs, plus a fully-welded heavy-duty range and engineered specials. The table below summarises the families; detailed geometry tables follow in §5.

Family	Standard	Bore (mm, standard)	Pressure (bar)	Typical sectors
HYC-N series	ISO 6020-1	25 – 200	160 (max 210)	Mobile, construction, agriculture
HYC-T series (tie-rod)	ISO 6020-2 (CETOP)	25 – 320	160 (max 250)	General industrial, machine tools
HYC-F series (round flange)	ISO 6022	50 – 400	250 (max 350)	Iron & steel, presses, mill duty
HYC-W welded heavy-duty	To customer spec	40 – 400 (up to 1,000 project)	up to 400	Metallurgy, marine, presses, mining
HYC-M mobile / mill-type	Custom / OEM drawing	40 – 250	250 – 350	Construction machinery, excavators, loaders
HYC-S servo / position-controlled	ISO 6020-2 based	40 – 200	160 – 250	Test benches, process control, R&D



HYC-F round-flange cylinders: serial delivery batch with customer-specific painting and fittings

4.1 Mounting styles available across ranges

Code	Mounting type	Common applications
MF3 / MF4	Round flange at head / cap end	Press rams, injection moulding, bridge lifting
MP3 / MP5	Rear clevis (plain)	Mobile equipment, linkage drives
MT4	Intermediate trunnion	Swinging loads, cranes, tilting mechanisms
MS2	Side lugs / foot mount	Machine tools, stationary fixtures
MX5	Rod end threaded, stud rear	Compact actuation, short stroke
Self-aligning clevis (spherical)	Spherical bearing at rod / cap end	Misalignment compensation, heavy earthworks

Full dimension tables for each mounting style — including A, B, H1–H6, M, L, R dimensions — are issued at the quotation stage together with the 3D model and 2D GA drawing for the selected configuration.

5. Detailed specification tables

5.1 HYC-T (CETOP tie-rod) — standard bore / rod combinations

Bore Ø (mm)	Rod Ø (mm)	Push area (cm ²)	Pull area (cm ²)	Max force push @ 160 bar (kN)	Max force pull @ 160 bar (kN)
25	12 / 18	4.9	3.8 / 2.4	7.8	6.1 / 3.8
32	14 / 22	8.0	6.5 / 4.2	12.8	10.4 / 6.7

Bore Ø (mm)	Rod Ø (mm)	Push area (cm ²)	Pull area (cm ²)	Max force push @ 160 bar (kN)	Max force pull @ 160 bar (kN)
40	18 / 28	12.6	10.0 / 6.4	20.1	16.0 / 10.2
50	22 / 36	19.6	15.8 / 9.5	31.4	25.3 / 15.2
63	28 / 45	31.2	25.0 / 15.3	49.9	40.0 / 24.5
80	36 / 56	50.3	40.1 / 25.6	80.4	64.2 / 41.0
100	45 / 70	78.5	62.6 / 40.1	125.7	100.2 / 64.2
125	56 / 90	122.7	98.1 / 59.1	196.3	157.0 / 94.5
160	70 / 110	201.1	162.6 / 106.1	321.7	260.2 / 169.8
200	90 / 140	314.2	250.6 / 160.2	502.7	400.9 / 256.4
250	110 / 180	490.9	395.9 / 236.4	785.4	633.5 / 378.2
320	140 / 220	804.2	650.2 / 423.9	1,286.8	1,040.4 / 678.2

Pressure × area = theoretical force. Pull area is smaller because of rod cross-section; slim-rod (first) and large-rod (second) options are available on every bore. Design factor ≥ 4 on static burst applied as standard; higher DF on request.

5.2 HYC-F (ISO 6022 round-flange heavy duty)

Bore Ø (mm)	Rod Ø (mm)	Nominal pressure (bar)	Max pressure (bar)	Typical duty
50	36	250	350	Clamping, light press
80	56	250	350	Press actuation
100	70	250	350	Forging manipulator
125	90	250	350	Mill work-roll balance
160	110	250	350	Descaler, shear
200	140	250	350	Caster segment
250	180	250	350	Heavy press
320	220	250	350	Forging press
400	280	250	350	Extrusion press

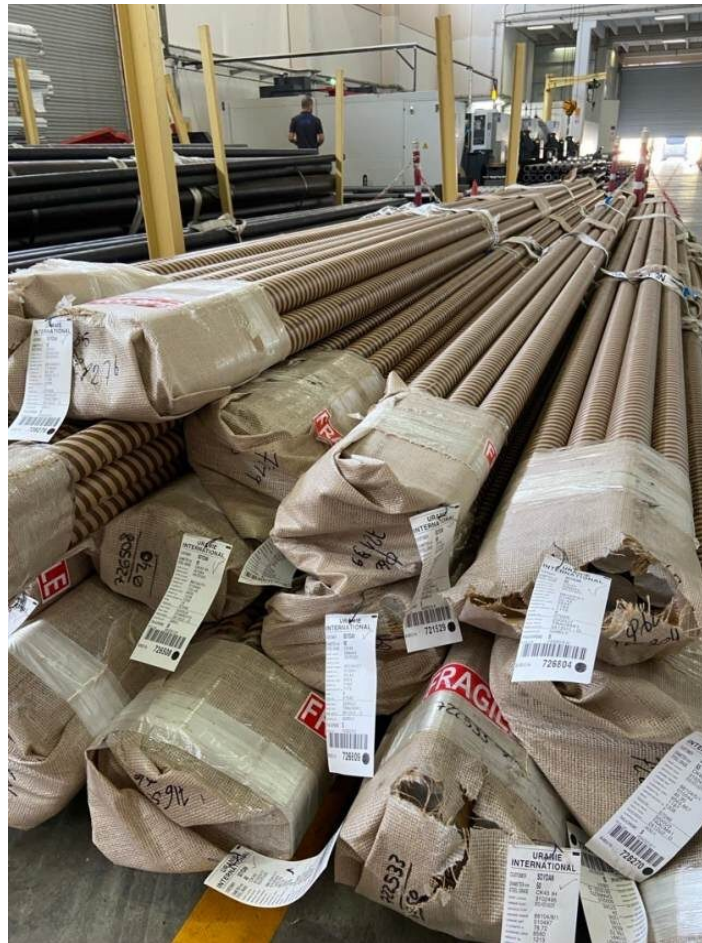
5.3 HYC-W (welded heavy-duty / mill-type) — envelope

Parameter	Standard range	Project ceiling
Bore	Ø100 – Ø400 mm	Ø1,000 mm
Rod	Ø70 – Ø280 mm	Ø700 mm
Stroke	up to 4,000 mm	up to 12,000 mm
Nominal pressure	250 – 350 bar	400 bar
Test pressure	1.5× nominal	1.5× nominal

Parameter	Standard range	Project ceiling
Fatigue design	10 ⁶ cycles standard	agreed per project
Certification scope	CE self-declaration	TÜV / Lloyd's / BV / DNV witness on request

6. Materials and surface treatments

Hydrocyl sources tubes, rods and seals exclusively from European suppliers. This section documents the bill of materials so that OEM engineering teams can map it directly onto existing approved-vendor specifications.



Chromed rod bars from European suppliers — stocked ready for machining and assembly

6.1 Cylinder tube (barrel)

Property	Standard	Extended options
Steel grade	E355 + SR (EN 10305-1)	20MnV6, 42CrMo4, S690 for higher yield
Finish	Cold-drawn, seamless, ready inside-honed Ra ≤ 0.4 μm	Skived and roller-burnished (SRB) Ra ≤ 0.2 μm
Tolerance	ISO H8	ISO H7 on request
Source	Leading European manufacturers (Marcegaglia and equivalents)	Project-specific European mill qualification

Property	Standard	Extended options
External coating	Primer + PU paint (customer RAL)	Epoxy marine (C5-M), HDG, stainless cladding

6.2 Piston rod

Property	Standard	Extended options
Steel grade	C45E (EN 10083; ≈ DIN Ck45)	42CrMo4, 20MnV6; stainless 1.4401 / 1.4542 for marine duty
Surface	Ready outside-chromed, 25 – 40 µm, HV ≥ 850	Induction hardened + chrome; nickel + chrome duplex; HVOF tungsten-carbide coating
Tolerance	ISO f7	ISO f6 for servo applications
Straightness	≤ 0.3 mm/m	≤ 0.1 mm/m for position-controlled cylinders
Source	Leading European manufacturers (Cromsteel, Uranie, Nimet and equivalents)	Alternative European-qualified suppliers on request

6.3 Seals and wear bands

Hydrocyl uses only Kastaş, Trelleborg or other European seal brands. No non-European sealing is used under any circumstance.

Component	Standard supplier	Material	Notes
Rod seal	Kastaş (central European logistics via Kastas Europe GmbH) / Trelleborg	PU / PTFE-bronze composite	Merkel (Freudenberg), Parker Prädifa on request — always European
Piston seal	Kastaş / Trelleborg	PTFE-bronze + NBR energiser	Low-friction option for servo applications
Wiper	Kastaş / Trelleborg	PU	Double-lip heavy-duty wipers for mill / mobile
Wear band	Kastaş / Trelleborg	Filled PTFE / fabric-reinforced	Guide band selection calculated per load
Static O-rings	Kastaş / Trelleborg / Parker	NBR 80, FKM, EPDM	Fluid-compatible selection matrix with every quote

A full seal-by-application matrix (fluid × temperature × speed × duty) is issued with every technical proposal. Customer-specified European seal brands are always accommodated.

7. Options, accessories and smart features

Hydrocyl cylinders are delivered as complete functional packages. The table below summarises the options available on standard and custom ranges — fitted at our works or supplied as matched accessories for field integration.

7.1 Cushioning

Cushion type	Code	Description	Use case
None	00	No end-of-stroke cushioning	Low speeds, no inertia
Fixed front	F0	Fixed cushion piston at rod side only	Vertical loads, compact envelope
Fixed both ends	FF	Fixed cushioning both ends	Moderate speeds, symmetric duty
Adjustable front	A0	Needle-valve adjustable, rod side	Tunable deceleration
Adjustable both ends	AA	Needle-valve adjustable, both ends	Heavy inertia, variable speeds
Slow adjustable	SA	Slow-damping profile with needle valve	High mass, vertical application

Cushion sizing is verified by energy-dissipation calculation (curves available on request) to prevent mechanical shock and protect the cylinder's long-term service life.

7.2 Position sensing and electronics

Option	Description	Comment
Proximity switches (end-of-stroke)	PNP / NPN / NAMUR inductive, integrated in cushion adjuster	For simple end-position signalling
Magnetostrictive linear transducer (integrated)	Analog 0–10 V / 4–20 mA or SSI / CANopen digital	Rod machined for magnet; typical accuracy ± 0.05 % FS
External linear encoder	LVDT / potentiometric	For retrofit or hazardous environments
ATEX / IECEx certified variants	Zone 1/2/21/22, II 2G / II 2D	Project-specific; SIL2-capable on request
Integrated valve manifold	Cartridge valves on rear cap — safety / holding / load-hold	Reduces external piping and leak points

7.3 Special processes



Bosch TEM-P350 thermal deburring unit — in-house burr removal for critical flow paths

Thermal deburring (TEM) is available in-house using a Bosch TEM-P350 system. The workpiece is placed in a sealed chamber, flooded with a precise combustible-gas mixture, and ignited — producing a brief, controlled combustion at up to 3,500 °C that cleanly removes every burr from internal passages and cross-holes. This is critical for cylinders with integrated manifolds and proportional valving.

7.4 Additional features

- Anti-rotation rod (square or keyed) for tool-holding applications
- Through-rod / double-rod cylinders for symmetric forces
- Telescopic cylinders (multi-stage) for long-stroke, compact-retracted applications
- Stainless-steel or Hardcoat-anodised aluminium bodies for corrosive service
- Integrated lubrication fittings and air-bleed valves (standard on cylinders > Ø80)
- Complete electro-hydraulic actuator packages (cylinder + HPU + controls) through the Soydan Group

8. Industries and applications served



Iron & steel — a core sector for Hydrocyl, with active installations at all major Turkish integrated steel producers

Hydrocyl cylinders are installed in production plants across Europe, Türkiye, CIS, MENA and beyond. The table below summarises the industries we serve, typical applications within each, and the depth of experience we have accumulated.

Industry	Typical applications	Experience depth	Representative customers
Compact construction & hydraulic systems (DACH)	Compact double-acting cylinders for construction equipment; custom hydraulic actuators	Very extensive — flagship customer relationship	Neuson Hydrotec (Wacker Neuson Group, Austria)
Iron & steel / metallurgy	Casters, roll-balancing, shears, descalers, manipulators, mill stands	Extensive — core sector since inception	Erdemir, İsdemir, Kardemir, Asil Çelik, Kocaer, Özkan, Atakaş, Dökaş, CTI Systems (Paul Wurth Group)
Hydraulic presses & metalworking	Press rams, ejector cylinders, clamping, die-change, bending-machine actuators	Extensive — serial OEM supply	Akyapak, CMS, İDÇ
Trailers & commercial vehicles	Tippers, walking-floor, hook-lift, steering, ramp actuation	Substantial — serial OEM supply to DACH	Krone (DE), Fliegl (DE)
Concrete pumps & construction plant	Pumping cylinders, boom articulation, outriggers	Substantial	Betonstar

Industry	Typical applications	Experience depth	Representative customers
Industrial laundry equipment	Press and transfer cylinders for continuous batch washers / irons	Established	Kannegiesser (DE)
Marine & shipbuilding	Hatch covers, steering gear, cranes, ramps, stabilisers	Established; paints & seals to marine spec	Selected Turkish and European yards
Mining & quarrying	Feeders, screens, crushers, tipping bodies	Substantial	Industrial mining OEMs in TR / CIS
Wheels, rail & heavy transport	Test benches, wheel-forging equipment, braking	Growing — active OEM programmes	Maxion Wheels
Hydraulic systems integrators	White-label cylinders for European hydraulic OEMs	Established	Wessel Hydraulik (DE), Lindenberg Technics (CH), RGD Planung GmbH (DE)
Industrial plant & consumer-goods manufacturing	Production-line cylinders, testing-rig actuators	Established	Beko
Sealing technology	Press and handling cylinders for seal production lines	Established	Kastaş
Construction & mobile equipment (Türkiye / export)	Booms, outriggers, steering, tipping, lifting	Substantial	Mazaka Heavy Industry, ELS Lift, Jantsa, STC

8.1 Selected European customer track record

The OEMs and integrators below are examples of European customers — many based in the DACH region — who rely on Hydrocyl for serial or project cylinder supply. Neuson Hydrotec is our flagship long-term customer relationship:

- **Neuson Hydrotec (Austria — Wacker Neuson Group)** — our most important and longest-running European customer relationship. Hydrocyl supplies custom hydraulic cylinders to a major DACH construction-equipment manufacturer; this relationship is a reference-grade demonstration of our ability to meet German / Austrian OEM standards on drawings, materials, welding, testing and documentation.
- **Akyapak (Türkiye — global export)** — one of Europe's most widely distributed metalworking-machinery OEMs; serial supply of cylinders for bending, punching and plate-rolling machines.
- **Wessel Hydraulik (Germany)** — long-term serial supply to a tier-1 German hydraulic systems brand.
- **Krone (Germany)** — cylinders for one of Europe's largest commercial-trailer OEMs.
- **Fliegl (Germany)** — hydraulic cylinders for trailers, tippers and agricultural / transport equipment.
- **Kannegiesser (Germany)** — press and transfer cylinders for industrial laundry systems.
- **RGD Planung GmbH (Germany)** — engineered cylinders for German plant-engineering projects.

- **Lindenberg Technics (Switzerland)** — engineered cylinders for Swiss industrial applications.
- **CTI Systems (Luxembourg — Paul Wurth Group)** — cylinders for heavy-lifting and handling systems in European metallurgical plants.
- **Kastaş** — our sealing partner is itself a cylinder customer, ordering units for their own production lines.
- **Maxion Wheels** — global automotive wheel manufacturer; production-line cylinders.
- Erdemir, İsdemir, Kardemir, Asil Çelik — all four of Türkiye's integrated steel producers; mill-duty and process cylinders.

9. Why Hydrocyl

OEMs who qualify Hydrocyl as a cylinder supplier typically cite the following five reasons. Each is verifiable through our certifications, our European bill of materials, and our customer reference list.

9.1 Custom cylinders delivered in under 10 weeks

Our strongest single differentiator. From a blank enquiry — application data, envelope, duty profile — to a fully engineered, manufactured and tested custom cylinder delivered ex works, Hydrocyl routinely completes the full cycle in under 10 weeks. 2D and 3D drawings are produced by our own engineers for every part. The same discipline applies whether a customer needs a single one-off prototype or the first article of a new serial programme.

9.2 Exclusively European bill of materials

Tubes are sourced ready inside-honed and rod bars ready outside-chromed exclusively from European manufacturers. Seals are exclusively Kastaş, Trelleborg or other European brands — no non-European sealing is ever used. Any customer-preferred European seal or component brand is accommodated. This BOM maps directly onto the approved-vendor lists operated by European OEMs.

9.3 Vertically integrated, in-house production

All design by our own engineers. All welding, painting, assembly and marking in-house. All machining in-house, or at named, certified subcontractors for cylinders up to 4 m stroke and Ø400 mm bore — with larger dimensions quoted on project basis. Welds inspected by NDT Level II-certified personnel. 100% of production tested to ISO 10100.

9.4 Certified quality system

ISO 9001, ISO 14001 and ISO 45001 for management. ISO 3834-2 for welding. 100% product testing to ISO 10100. Every cylinder carries a signed, serialised test report. Third-party FAT inspection by TÜV, Lloyd's, Bureau Veritas or DNV is available on project basis.

9.5 Full technical envelope

Bore from Ø25 mm to Ø1,000 mm, stroke up to 12 m, pressure up to 400 bar — covering mobile hydraulics, CETOP tie-rod, ISO 6022 heavy-duty, welded mill-type, and servo / position-controlled applications. ATEX / IECEx, SIL2-capable servo cylinders, integrated manifolds and electro-hydraulic actuator packages are all available.

10. Quality assurance and testing



CNC machining with verified dimensional control — rods protected in mesh prior to next operation

Customer specifications are thoroughly followed and checked at every manufacturing stage by our quality-control department. Every part must fall within the tolerances specified on the technical drawing. Welds are checked by personnel holding NDT Level II certification. Every cylinder is 100% tested for leak-tightness and function to ISO 10100 before it leaves the factory, and ships with a signed serialised test report.

10.1 Quality control flow

Stage	Check	Method / standard
Raw material incoming	Material certificates 3.1 / 3.2 (EN 10204), tube ID, rod OD, hardness	Certificate review, caliper, hardness tester
Machining in-process	Dimensional tolerances (H8 / f7), roughness (Ra)	CMM, profilometer, pneumatic gauging
Welding	Weld prep, WPS / PQR, penetration, porosity	ISO 3834-2; NDT Level II personnel (MT, PT; UT / RT on request)
Assembly	Seal orientation, torque of tie-rods / bolts, cushion adjustment	Calibrated torque wrenches, visual inspection
Final test (100%)	Leak-tightness at working and 1.5× working pressure; stroke; breakaway; cushion behaviour	ISO 10100 hydraulic test bench
Documentation	Serialised test report, CE / UKCA self-declaration where applicable	Traceable certificate issued with cylinder

10.2 Certification summary

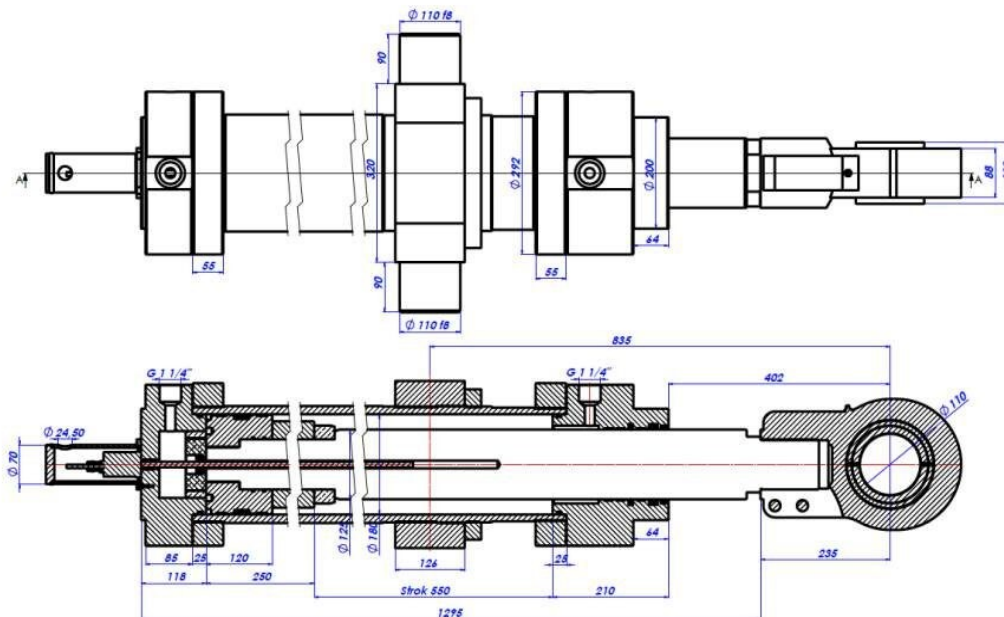
ISO 9001	Quality Management System
ISO 14001	Environmental Management System
ISO 45001	Occupational Health & Safety Management System
ISO 3834-2	Comprehensive quality requirements for fusion welding of metallic materials
ISO 10100	100% of cylinders tested at working and 1.5× working pressure
NDT Level II	Weld inspection performed by Level II-certified personnel

10.3 Additional tests on request

- Leak-down hold tests (4 h / 24 h) for accumulator-style or vertical-hold applications
- Cycle testing to agreed duty profile
- Positional-accuracy test for servo cylinders (step response, linearity, hysteresis)
- Low- / high-temperature functional test in climatic chamber (partner facility)
- FAT (Factory Acceptance Test) with customer or third-party inspection — TÜV, Lloyd's, Bureau Veritas, DNV

11. Design and engineering process

Every project starts with a joint engineering review between the customer and the Hydrocyl design team. All design is carried out by our own in-house engineers, and both 2D and 3D drawings are produced for every single part of every cylinder. Our aim is to give the OEM a single technical interlocutor from first enquiry to FAT, with a complete engineering file behind every unit.



Typical Hydrocyl engineering package: 2D general arrangement with stroke, port, cushioning and mounting dimensions

Step	Activity	Deliverable to customer
1. Enquiry	Application data sheet (force, stroke, speed, duty, envelope, mounting)	Acknowledgement within 1 working day
2. Concept	Preliminary sizing (bore / rod, buckling, cushioning) by our own engineers	Technical proposal with draft 2D sketch
3. Quotation	Firm price, lead time, commercial terms	Offer in EUR / USD / GBP / CHF
4. Engineering release	Full 3D model (STEP / Parasolid), 2D drawings for every part, specification sheet	Engineering file for customer approval
5. Manufacturing	In-house or named certified subcontractor machining ($\varnothing \leq 400$ mm / 4 m standard; larger on project); in-process QC at every stage	Progress updates at defined milestones
6. Test & release	100% test per ISO 10100; optional FAT witness	Signed test report per serial number
7. Shipment & after-sales	ISPM-15 crating, documentation pack, spare-parts list	Tracking; seal-kit reference; lifetime support

Custom cylinders routinely complete Steps 1–7 in under 10 weeks. Technical support is provided in English and Turkish; German-language support is arranged on project basis.

12. Ordering code and configuration

Hydrocyl uses a structured ordering code so that standard cylinders can be specified unambiguously on a purchase order. Custom cylinders retain a project number in place of the geometry fields.

Field	Description	Examples
1. Family	Cylinder family	HYC-T (CETOP), HYC-F (flange), HYC-W (welded), HYC-M (mobile), HYC-S (servo)
2. Bore	Bore \varnothing in mm	040, 063, 100, 160, 250
3. Rod	Rod \varnothing in mm	022, 045, 070, 110
4. Stroke	Stroke in mm	0250, 1000, 2500
5. Mounting	Mounting style code	MF3 / MF4 / MP3 / MP5 / MT4 / MS2 / MX5 / CL (clevis)
6. Pressure class	Nominal pressure in bar	160 / 210 / 250 / 350
7. Options	Cushioning + seal pack + sensor + finish	AA-KP-PS-RAL5010
8. Revision / project	Serial or project reference	R01 / P-2026-0147

Example: HYC-T-100-070-1000-MF3-250-AA-KP-RAL5010 = CETOP tie-rod cylinder, $\varnothing 100$ bore, $\varnothing 70$ rod, 1,000 mm stroke, rear round flange, 250 bar nominal, adjustable both-end cushioning, premium seal pack, painted RAL 5010 (gentian blue).

13. Lead times, packing and logistics



Loading for European road delivery — heat-treated wooden crates (ISPM-15), Soydan-branded

Standard OEM cylinders (serial)	4 – 6 weeks ex works İzmir
Custom cylinders engineered from scratch	under 10 weeks ex works İzmir — concept to delivery
Welded heavy-duty / mill-type (project)	8 – 12 weeks ex works İzmir
Expedited production	Available on a case-by-case basis with surcharge
Incoterms	EXW / FCA / FOB / CIF / DAP (to customer site)
Packing	Heat-treated wooden crates (ISPM-15), VCI wrapping, rod protection, ports plugged
Logistics partners	Road to EU (TIR), sea (Aliğa / Nemrut / Ambarlı ports), air freight on request
Typical road transit to DE / AT / CH	6 – 9 days from İzmir to customer site
Currency & payment terms	EUR / USD / GBP / CHF; terms agreed per contract



Blue-painted HYC-W cylinders with integrated valve manifolds, ready for crating

14. Contact

Company	Soydan Hidrolik Teknolojileri A.Ş.
Product brand	Hydrocyl
Head office & factory	AOSB 10039 Sk No:21/1, 35620 Çiğli, İzmir, Türkiye
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