



FERRHAUS

RUBBER HEX DUMBBELLS · CAST IN TÜRKIYE

Weight, to the gram.

Ferrhaus casts, coats and calibrates hex dumbbells from 1 to 50 kg and ships them to distributors and gym chains across Europe, Russia and the Gulf. Every piece is weighed against its own stamp before the coating is signed off.

Product catalogue 2026 · ferrhaus.com

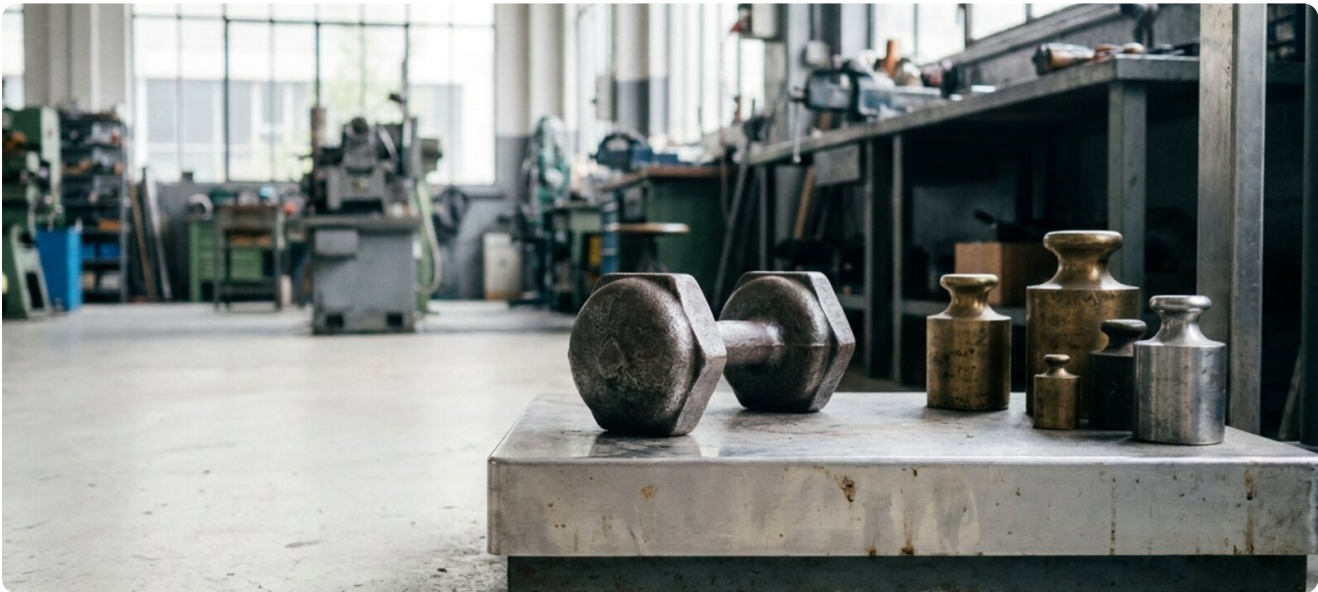
Every piece is weighed twice, and the second time decides.

Ferrhaus is a foundry that learned coating, not a fitness brand that put a logo on a container. Iron is melted and poured here, the handles are machined here, and the rubber is moulded onto the head on the same floor — so when a dimension drifts, one person owns it instead of three suppliers pointing at each other.

The head is weighed bare, before coating, against the weight it will be stamped with. It is weighed again finished, because rubber has mass and a coating line that runs hot puts on more of it. A piece that misses on the second weighing is not re-labelled to the next increment up; it goes back to the melt. That single rule is most of the difference between $\pm 3\%$ and $\pm 1\%$.

Capacity is 4,800 tonnes a year and deliberately not larger. We would rather hold a delivery date for eleven distributors than miss it for thirty.

0.6 %	5,000	< 0.2	4,800 t
AVERAGE WEIGHT DEVIATION, CURRENT BATCH	DROPS FROM 1.2 M PER BATCH RELEASE	MG/KG PAH AGAINST A 1.0 CEILING	ANNUAL CAPACITY



PRODUCT RANGE

Six lines, split by coating and by rack.

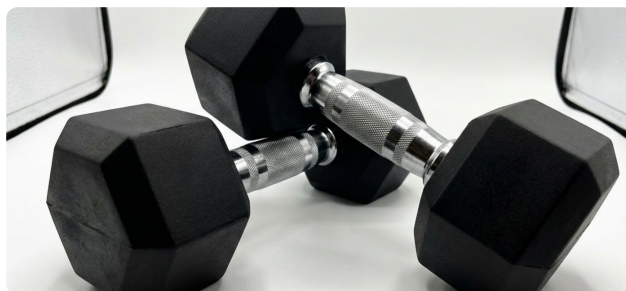
The range is divided the way a buyer orders: by what the dumbbell is coated with and where it will sit. A boutique studio, a hotel gym and a hard-use commercial floor need different coatings on the same cast head, the same handle and the same tolerance — so a mixed order still reads as one set on the rack.



Ferrhaus H-RC

The reference line. Cast grey iron hex head, virgin SBR coating, hard chrome knurled handle running through both heads. Increments of 0.5 kg from 1 to 10 kg and 2.5 kg from 12.5 to 50 kg. The hex face stops it rolling and takes the drop; this is the dumbbell a commercial floor buys and re-racks for a decade.

Range 1 – 50 kg · Coating Virgin SBR, 5 mm · Handle 28 / 32 mm chrome · Tolerance $\pm 1\%$



Ferrhaus H-PU

The same cast head under a urethane skin. Urethane costs more and earns it in two places: it does not mark a light-coloured floor and it does not smell at all, which is what a hotel or a boutique studio is actually paying for. Colour-matched to a brand palette on orders above 200 pairs.

Range 2.5 – 50 kg · Coating Urethane, 5 mm · Handle 32 mm chrome · Marking Non-marking



Ferrhaus R-PU

Round-head urethane, for floors that rack rather than rest on the ground. The round head seats in a saddle rack and reaches 60 kg, where a hex head of the same weight gets too wide to sit in a two-tier. Straight knurled handle with a 12-sided end face so it does not roll on a flat bench.

Range 2.5 – 60 kg · Head Round, saddle-rack · Handle 34 mm chrome · Coating Urethane, 6 mm



Ferrhaus H-CI

Bare cast iron hex with a baked powder coat and no rubber at all. Ordered by outdoor and military installations, and by markets where a rubber compound has to clear an import test the buyer would rather avoid entirely. Salt spray on the coated head runs to 240 hours.

Range 1 – 30 kg · Finish Baked powder coat · Salt spray 240 h · Handle 28 / 32 mm



Ferrhaus



Our reading on the left, the standard on the right.

Values come from the current production batch and the test log that ships with it. Where a European regulation sets the limit we name it; where the limit is ours we say so, because an in-house rule and a legal one are not the same thing and blurring them is how this trade loses buyers.

PARAMETER	UNIT	FERRHAUS	LIMIT / STANDARD
Weight deviation, batch average	%	0.6	in-house reject above ± 1.5 ; trade practice ± 3
Weight deviation, single piece max	%	1.4	in-house reject above ± 1.5
Head material	—	EN-GJL-200 grey iron	EN 1561, min. 200 MPa tensile
8 PAHs in coating	mg/kg	< 0.2	REACH Annex XVII/50, max. 1.0
Coating hardness	Shore A	65 $\pm$ 5	in-house window 60 – 70
Coating thickness, head face	mm	5.0	in-house minimum 4.0
Coating adhesion, pull-off	MPa	3.2	in-house minimum 1.5
Drop test before batch release	drops from 1.2 m	5,000	in-house; no coating separation permitted
Handle finish	—	Hard chrome over steel, knurled	—
Handle salt spray, ISO 9227 NSS	h	96	in-house minimum 48
Handle pull-out force	kN	> 12	in-house scrap below 8
Handle diameter, 1 – 10 kg	mm	28	declared
Handle diameter, 12.5 – 50 kg	mm	32	declared
Increment, 1 – 10 kg	kg	0.5	declared
Increment, 12.5 – 50 kg	kg	2.5	declared
Marking	—	kg cast into the head, batch laser-etched on the handle	traceable to melt and coating lot

EN ISO 20957-1 sets the general safety requirements for stationary training equipment; free weights are covered by its general clauses rather than by a dedicated part, so the numbers that decide a dumbbell are the material, the coating chemistry and the tolerance. REACH Annex XVII entry 50 is the binding one for a rubber-coated product sold into the EU: eight polycyclic aromatic hydrocarbons, one milligram per kilogram, in any part with prolonged skin contact.

How much goes in a box, before you ask.

Figures are calculated from pallet weights against container payload limits. Read the note before you plan a 40 ft: this is dense cargo and almost nothing here fills a box by volume.

ITEM	PACK	GROSS (KG)	20 FT	40 FT	40 FT HC	45 FT	TRUCK
H·RC set, 1 – 10 kg	carton + cradle	118	237	224	224	233	203
H·RC pairs, 12.5 – 30 kg	pallet, 8 pairs	340	82	77	77	81	70
H·RC pairs, 32.5 – 50 kg	pallet, 4 pairs	340	82	77	77	81	70
H·PU pairs, 2.5 – 25 kg	pallet, 10 pairs	310	90	85	85	89	77
R·PU pairs, 2.5 – 60 kg	pallet, 6 pairs	380	73	69	69	72	63
DR·10 rack, knocked down	crate	82	100 *	200 *	220 *	240 *	190 *

Weight is binding, not volume. A 20 ft reaches its 28 t payload with roughly a third of the box still empty, and a 40 ft is capped at 26.5 t — five percent less than the 20 ft it costs nearly twice as much to move. For dumbbells the 20 ft is almost always the cheaper box per tonne, and mixing a rack order into the empty space is free freight. Rows marked * are volume-bound rather than weight-bound. Destination road limits often bite before the container limit does: check the axle rules at the delivery address, not at the port. Send the mix and the port and we return an exact stow plan with the quotation.

Seven stations, and the fifth is the one that decides.

Casting makes the shape and coating makes the surface. Weighing the bare head against the weight it will be stamped with is what makes the tolerance — which is why it happens before the rubber goes on, not after, when the only fix left is a new label.

01	Melt and mill certificate Grey iron is melted to EN-GJL-200 and a sample from each melt goes to spectrometer before pouring. The certificate travels with the lot number and ends up referenced on your packing list.
02	Pour and cool Heads are poured into sand moulds and cooled on the floor, not quenched. A quenched head is harder and more brittle, and brittleness is the wrong property for something that gets dropped on concrete.
03	Shot blast and deburr Sand and scale are blasted off and the parting line is ground back. A burr left under 5 mm of rubber becomes a stress point, and the coating splits over it three years later.
04	Handle machining and chrome Handles are turned from a single steel bar, knurled, then hard chrome plated. Salt spray on the finished handle is checked at 96 hours per plating lot.
05	Bare weighing Every head is weighed bare against its target, before coating. Out of window goes back to the melt. This is the station that produces the $\pm 1\%$ and there is no shortcut for it — a scale after coating can only tell you what you already shipped.
06	Rubber moulding Virgin SBR is moulded onto the head at 5 mm on the face, 65 ± 5 Shore A. Compound is tested per batch for the eight REACH PAHs before it is allowed onto the line.
07	Drop test, mark and pack A sample from each batch takes 5,000 drops from 1.2 m; the batch is released only if there is no coating separation. Pieces are laser-etched with the lot, weighed a second time and packed.

The document set a distributor opens first.

EN ISO 20957-1	Stationary training equipment — general safety requirements and test methods, applied to the free-weight range	
REACH Annex XVII, entry 50	Eight polycyclic aromatic hydrocarbons in rubber and plastic parts with prolonged skin contact — max. 1.0 mg/kg, tested per compound batch	
EN 1561	Grey cast iron, grade EN-GJL-200 — mill certificate issued per melt	05
ISO 9227 NSS	Neutral salt spray on the chrome handle finish — report issued per plating lot	

CONTACT

Send the mix. We will send the stow plan.

Tell us the lines, the increments, the annual quantity and the destination port.
You get a unit price, a container loading plan and a delivery date — usually within two working days.

E-mail	sales@ferrhaus.com
Phone	+90 216 606 21 86
Web	ferrhaus.com
Address	Management office — Sanayi Mah., Teknopark Bulvarı No: 1/4C, Inner door 112, Pendik / İstanbul