

Performance text "electrohydraulic anti-RAM barriers"

Scope of application:

Drive-through barrier, for impact loads up to 550 KN. Computational verification and dynamic simulation according to **PAS68: 2013 Anti Ram Barrier V / 7500 (N2) /50/90:2.0/3.3** corresponding to 7,5to @ 50Km/h

Design type:

Extremely robust, electrohydraulic barrier system with a maximum opening moment of 10 KNm, consisting of TÜV model tested barrier with barrier housing, barrier boom adapter and barrier boom with integrated circumferential inner steel cable, and 2 abutments of welded steel plates for bolting to the steel concrete foundation.



Basic data:

Barrier width	Up to 10 m
Barrier boom	steel or aluminum profile, dimensions and dimensioning project-specific, with internal circumferential steel cable
Blocking effect	The impact load of up to 550 KN is initiated as a bending moment into the abutments by means of a circumferential steel cable lying inside the barrier boom. So that the tensile forces can be safely induced into the abutment, 2 rigid locking bolts are located at the ends of the boom. The force effect arises only between the both abutments and the steel cable, so that in the event of a crash the barrier drive is only lightly loaded.
Catching cable	endless cable, diameter = 20mm, minimum breaking load = 55to
Barrier height	0.8 to 1m from top of floor
Impact absorption	> 723KJ

PAS68	2013 Classification V / 7500 (N2) /50/902.0/3.3 corresponding to 7,5to @ 50Km / h
Opening time	8 to 15 sec. depending on barrier boom length and weight
Temperature range	-25 ° C to + 70 ° C
Barrier frame	stable welded steel construction fully galvanized and powder coated. The base plate of the frame can be screwed directly onto the foundation.
Barrier fork	stable welded steel construction fully galvanized and powder coated. Main shaft stainless steel, D = 60mm, 2-sided bearing in pedestal housings and sealed deep groove ball bearings
Barrier drive	Hydraulic cylinder with electric motor-driven hydraulic unit and 5 liter oil tank integrated as a compact unit into the barrier frame.
Drive motor	three-phase motor, 2.2KW, 400 VAC, 50 Hz
Pump pressure	adjustable up to 200 bars
Hydraulic cylinder	D = 80mm, stroke = 300mm, nominal force = 65 KN, both end positions provided with adjustable damping, in addition with lowering brake valve as safety in the event of sudden pressure drop.
Equipment	Valve unit, filter, hand pump, hydraulic lines as screwed hose connections
Emergency opening	via manual pump and manual valve actuation
Barrier housing	Stable construction made of 2mm stainless steel, powder-coated (customer-specific) and bolted to the barrier frame. For maintenance purposes, a simple disassembly is possible.
2 abutments	Extremely robust welded construction of 10, 15 and 20mm steel plates, fully galvanized and powder coated. The abutment at the end of the barrier has a locking mechanism that prevents the boom from bending upwards in the event of a crash.
Control	Programmable logic controller to control the required barrier and interlock functions as well as the optional functions <ul style="list-style-type: none"> - Control loop detector - Light beam evaluation - safety edge - Key switch - custom signal exchange