Yale

ATEX

ATEX

General information on explosion protection.

Some products from our standard range have been modified for use in potentially explosive atmospheres (areas).

The products of this field have been approved by the TÜV Rheinland and DEKRA EXAM.
The corresponding documentation is deposited by the notified bodies.

INFO

Apart from electric explosion protection regulation, there are standards on mechanical explosion proof.
Please consider these standards!

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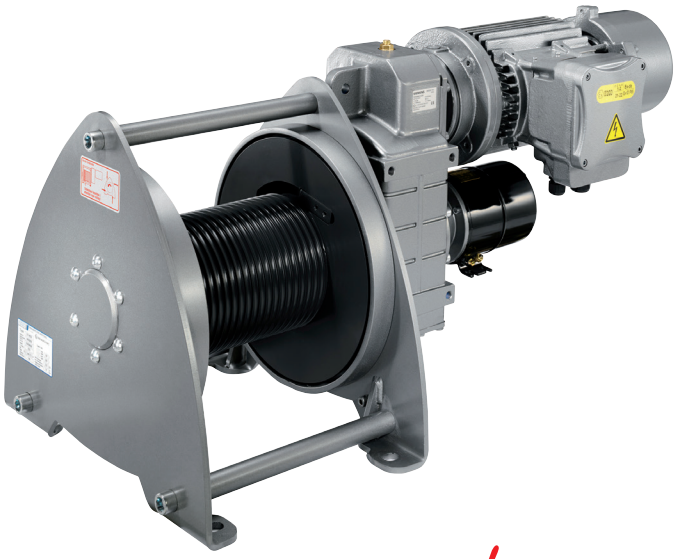
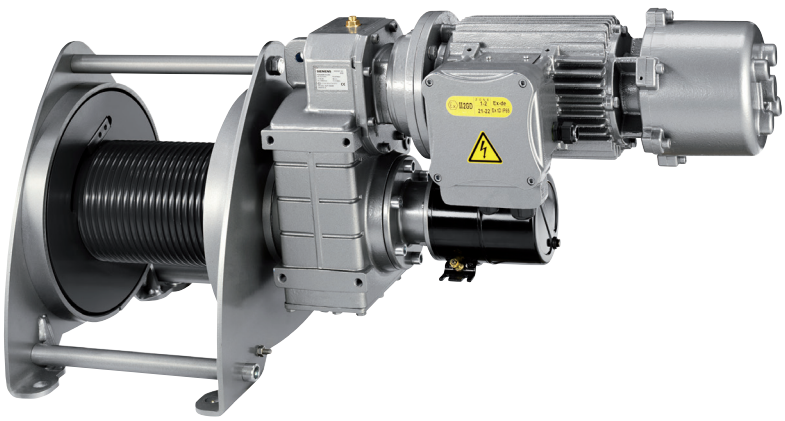


Application-oriented winch solutions

INFO

Customer-specific winch adjustments are possible after consultation.



Electric winch model BETA-EX

Capacity 320 - 7500 kg

Electric winches of the series BETA-EX are designed according to the EU Directives 2014/34/EU and MRL 2006/42/EG.
The models are usable in any place, where the risk of ignition of explosive atmosphere exists (mixture of air, gases, fumes and dust/air-mixture, respectively) e.g. chemical or petrochemical industry, biogas plants, paint shops.
Due to a specially-tailored modular system, the suitable winch for each individual application can be put together easily.
The BETA-EX is characterized by the excellent workmanship in connection with the reliable and stable gear motors.

- Special surface coating
- The electrically releasing spring-operated disc brake keeps the load safe even if the power fails.
- Powerful three-phase drives for multi-range voltage 380 - 420 V, 50 Hz or 440 - 460 V, 60 Hz. Insulation class F, duty cycle 40 % ED.
- From a load capacity of 1000 kg equipped as standard with an overload protection.
- The maintenance-free spur gear running in an oil bath, with helical gearing, milled and polished gearwheels, ensures particularly smooth running.
- Two rope fixings (left and right) for variable rope feed.

Equipment options

- Electric control incorporated in a flame-proof housing Ex II 2 GD de IIB T4 T 135°C
- Electric control not ATEX-compliant (Mounting outside of ATEX-area)
- A range of drum designs, e.g. extended for greater wire rope capacity, special rope drums for multi-rope operation.
- Rope pressure rolls to prevent springing open of the unloaded rope on the drum.
- Adjustable gear limit switch to limit the rope path in both directions.
- Other operating voltages on request.
- Hand-actuated auxiliary switch in ATEX-design with Up/Down and emergency stop for an enhanced operating safety.
- Special ropes with copper-plated load hook.
- Sheaves, pulley blocks (ATEX-compliant Ex II 2 GD IIB T4 135°C IP65).

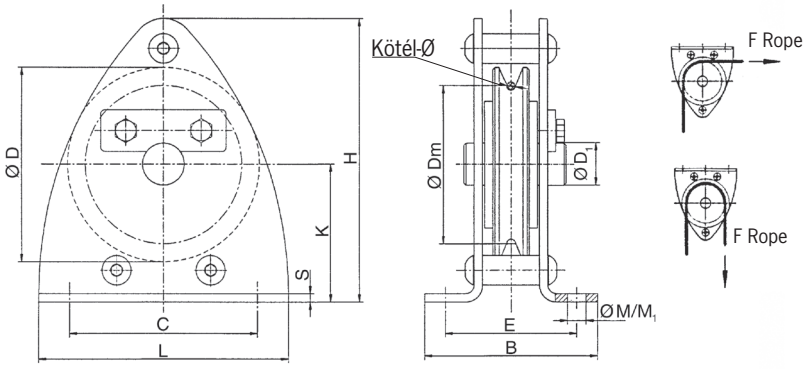
Sheave block-EX for rope guidance, equipped with ball bearings, incl. earthing screw and copper-coated sheave model DSRBX S

Technical data model DSRBX S MEDIUM II 2 GD c IIB T4

Model	Art.-No.	Classification FEM/ISO	Pulling force in kg at deflection 90°	Pulling force in kg at deflection 180°	Rope diameter mm
DSRBX S 90/4	0400431113	2m/M5	700	500	4
DSRBX S 145/5	0400431114	4m/M6	1100	800	5
DSRBX S 145/6	0400431115	2m/M5	1100	800	6
DSRBX S 185/8	0400431117	2m/M5	2300	1630	8
DSRBX S 185/9	0400431118	1 Am/M4	2300	1630	9
DSRBX S	0400431121	2m/M5	2500	1800	12
DSRBX S	0400431123	2m/M5	4500	3200	14
DSRBX S	0400431124	3m/M6	5000	3800	16
DSRBX S	0400431125	2m/M5	5000	3800	18
DSRBX S	0400431126	3m/M6	8000	6000	20

Dimensions model DSRBX S

Model	DSRBX S 90/4	DSRBX S 145/5	DSRBX S 145/6	DSRBX S 185/8	DSRBX S 185/9	DSRBX S 270/12	DSRBX S 325/14	DSRBX S 400/16	DSRBX S 400/18	DSRBX S 490/20
Art.-No.	0400431113	0400431114	0400431115	0400431117	0400431118	0400431121	0400431123	0400431124	0400431125	0400431126
B, mm	85	125	125	138	138	191	260	302	302	313
C, mm	90	160	160	195	195	290	350	430	430	580
Ø D, mm	90	145	145	185	185	270	325	400	400	490
Ø D1, mm	20	25	25	30	30	40	50	50	50	65
Ø Dm, mm	80	125	125	160	162	246	297	368	364	450
E, mm	62	88	88	106	106	138	180	212	212	220
H, mm	134	224	224	273	273	407	490	612	612	694
K, mm	65	110	110	135	135	202	242	310	310	340
L, mm	120	200	200	245	245	360	440	530	530	650
Ø M/M1, mm	9/9	11.5/13	11.5/13	13.5/15	13.5/15	18/20	22/25	26/30	26/30	34/40
S, mm	4	6	6	8	8	10	12	15	15	16



Manual winch with load pressure brake model OMEGA-EX

Capacity 1000 daN

The hand winch OMEGA-EX is a complete new construction and was developed especially for the high safety requirements in potentially explosive atmospheres.
All components of the OMEGA-EX are designed to avoid effectively an inadmissible heating of the surfaces. Carefully selected materials and the sophisticated construction of the winch prevent the occurrence of mechanically caused sparks, for example by intrusion of foreign materials.

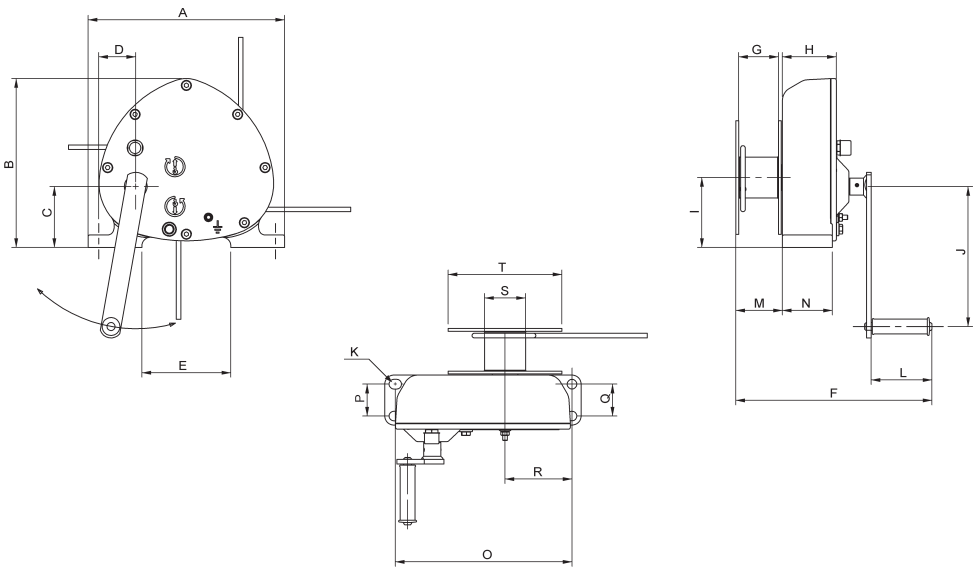
Features

- Winch housing made of aluminum permanent mold casting for a low own weight, rope drum made of steel, chemically nickel-plated for a high versatility.
- Integrated load pressure brake
- Closed gear with oil bath lubrication. The large oil volume ensures a high cooling effect.
- Equipotential bonding to avoid electrostatic charging.
- Pivotable crank handle
- Suitable for ambient temperatures of -20°C up to +40°C.

Application areas

Chemical or petrochemical industry, biogas plants, paint shops

Technical data model OMEGA-EX MEDIUM II 2 GD ck IIB T4

Model	EAN-No. 4053981**	Capacity 1st layer kg	Capacity top layer kg	Rope diameter mm	Lift per crank rotation mm	Required crank effort daN	Weight without rope kg
OMEGA-EX 10	**004570	1000	692	8	29	17	38

Model	OMEGA-EX 10
A, mm	345
B, mm	300
C, mm	110
D, mm	65
E, mm	156
F, mm	424
G, mm	90
H, mm	95
I, mm	126
J, mm	320
ØK, mm	17
L, mm	85
M, mm	116
N, mm	88
O, mm	310.5
P, mm	56
Q, mm	56
R, mm	117.5
Ø S, mm	100
T, mm	200