

# OMEGA MANUAL WIRE ROPE WINCHES

## OMEGA Manual wire rope winches

Developed for special challenges: the OMEGA manual wire rope winch offers perfect functional safety in areas such as the ATEX (explosion protection) or off shore ones. The OMEGA BGV D8 and OMEGA OFFSHORE versions are prepared for manual operation and operation via an external motor-powered drive.

### OMEGA BGV D8

- Carrying loads 1000 kg

### OMEGA Offshore

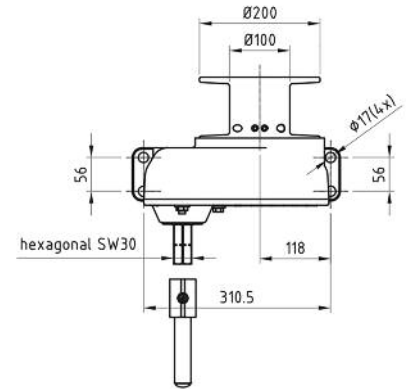
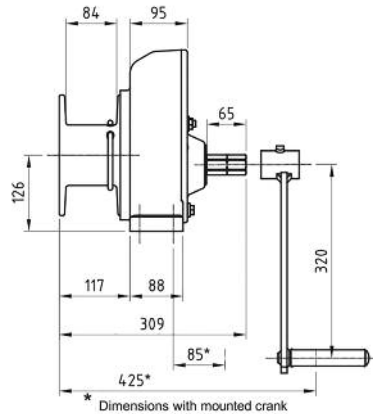
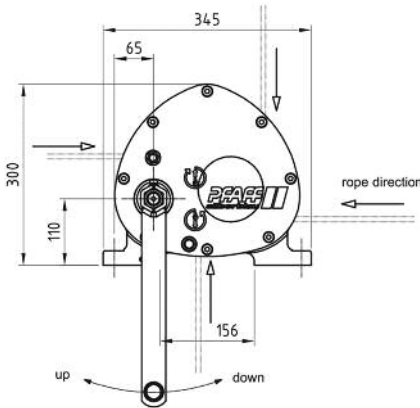
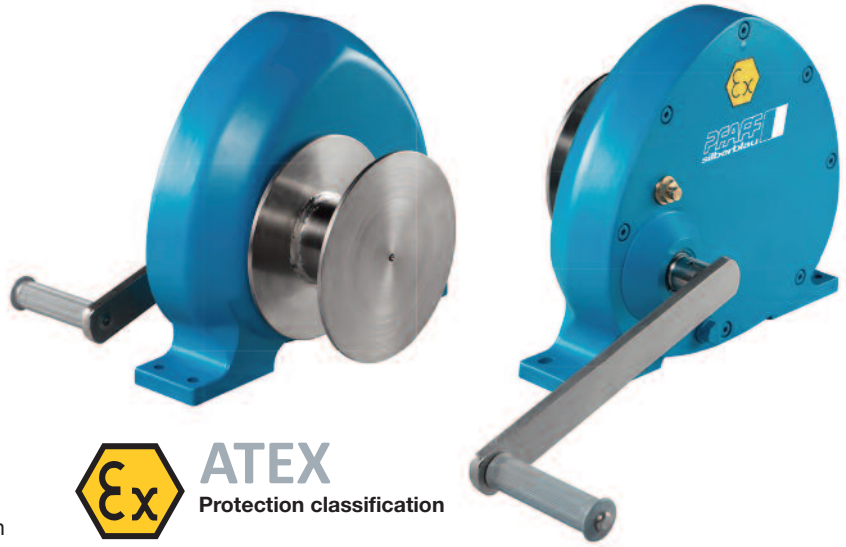
- Carrying loads 800 kg
- External motorized drive possible

### OMEGA ATEX

- Carrying loads 1000 kg
- Used in potentially explosive atmospheres requiring a high level of safety.

### Standard equipment

- Removable hand crank
- Encapsulated gearbox – running in oil bath
- High-quality painting to improve corrosion protection



Model	Article number	Capacity 1st layer kg	Capacity 4th layer top layer kg	Rope-Ø mm	Useable rope length 1st layer mtr	Useable rope length 4th layer mtr	Lift per crank rotation 1st layer mm	Lift per crank rotation 4th layer mm
OMEGA BGV D8	192010587	1000	692	8*	1.6	13.1	29	42
OMEGA Off shore	192010589	800	800	10**	1.2	4.3	30	35
OMEGA ATEX	192010588	1000	692	8*	1.6	13.1	29	42

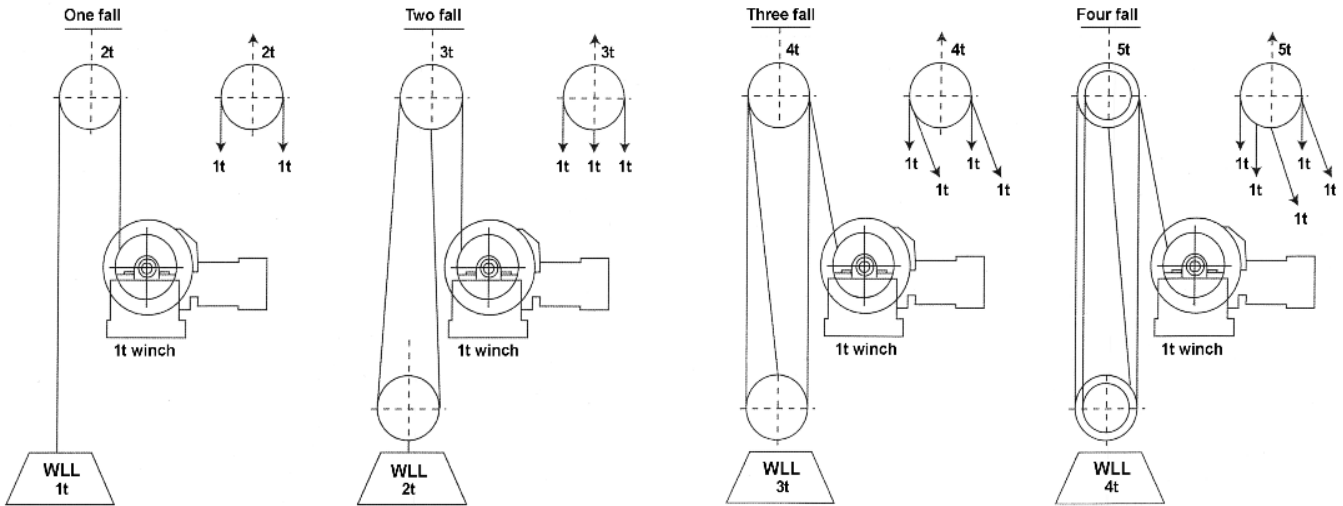
Model	Article number	Required crank effort full load daN	Driving torque Mta Nm	Max. load cycles p/hr full load mm	Input speed Mta 1/min	Duty ratio	Weight without rope max. kg
OMEGA BGV D8	192010587	17	54	-	100	S3-50%	38
OMEGA Off shore	192010589	17	54	-	100	S3-50%	38
OMEGA ATEX	192010588	17	3	3	-	-	38

\*recommended rope: DIN 3069 SE 1960 N/mm<sup>2</sup>

\*\*recommended rope: DIN 3069 SE 1770 N/mm<sup>2</sup>

# CALCULATING WINCH LIFTING CAPABILITIES

Since the rope is continuous, from the drum to the attachment point, the load is always 1 tonne, no matter where measured. The head load is the number of line attachments at the head sheave x 1 tonne. All loads shown ignore frictional losses in the system.



## DRIVE GROUP TO DIN 15020 - PART 1

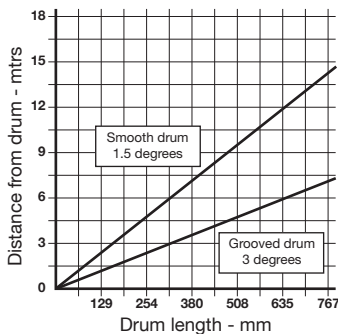
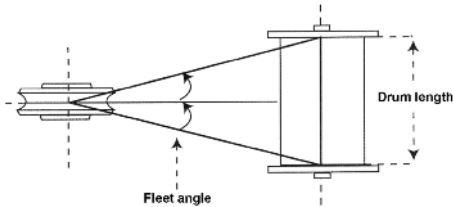
RUNNING TIME CATAGORY Running time per day in hrs related to one year	LIGHT Max load occurs only infrequently	MEDIUM Low, average. Max. load occurs with roughly equal frequency	HEAVY Max. load occurs almost continuously
V006 up to 0.125	1Em	1Em	1Dm
V012 up to 0.125	1Em	1Dm	1Cm
V025 up to 0.125	1Dm	1Cm	1Bm
V05 up to 0.125	1Cm	1Bm	1Am
V1 up to 0.125	1Bm	1Am	2m
V2 up to 0.125	1Am	2m	3m
V3 up to 0.125	2m	3m	4m
V4 up to 0.125	3m	4m	5m
V5 up to 0.125	4m	5m	5m

If the duration of an operating cycle is 12 minutes or longer, the rope may be graded once drive group lower than the drive group grading determined from the running time category and from the load collective.

## FLEET ANGLE / SLOPES / RESISTANCE

### • Calculating the fleet angle

Minimum distance from drum to first sheave or load connection - M.



### • Slope & grade resistance

GRADE Percent per 100 horizontal feet	RESISTANCE kg pull per tonne to overcome resistance	GRADE Percent per 100 horizontal feet	RESISTANCE kg pull per tonne to overcome resistance
1	9	20	178
2	18	25	220
3	27	30	260
4	36	30	260
5	45	35	299
6	54	40	337
7	63	45	372
8	73	50	406
9	82	55	437
10	90	60	464
11	99	65	492
12	108	70	519
13	117	75	543
14	126	80	565
15	134	85	587
16	143	90	607
17	151	95	624
18	160	100	638
19	169		