

# Brake Calipers & Pads



windpower renewable solutions Ltd.  
A Company of the Sprint Group  
G3 West Mill, Imperial Business Estate  
Gravesend, Kent DA11 0DL  
Tel. +44 (0)1474 534251  
Fax. +44 (0)1474 534566  
[info@wrs-uk.com](mailto:info@wrs-uk.com)  
[www.wrs-uk.com](http://www.wrs-uk.com)

**windpower**  
renewable solutions

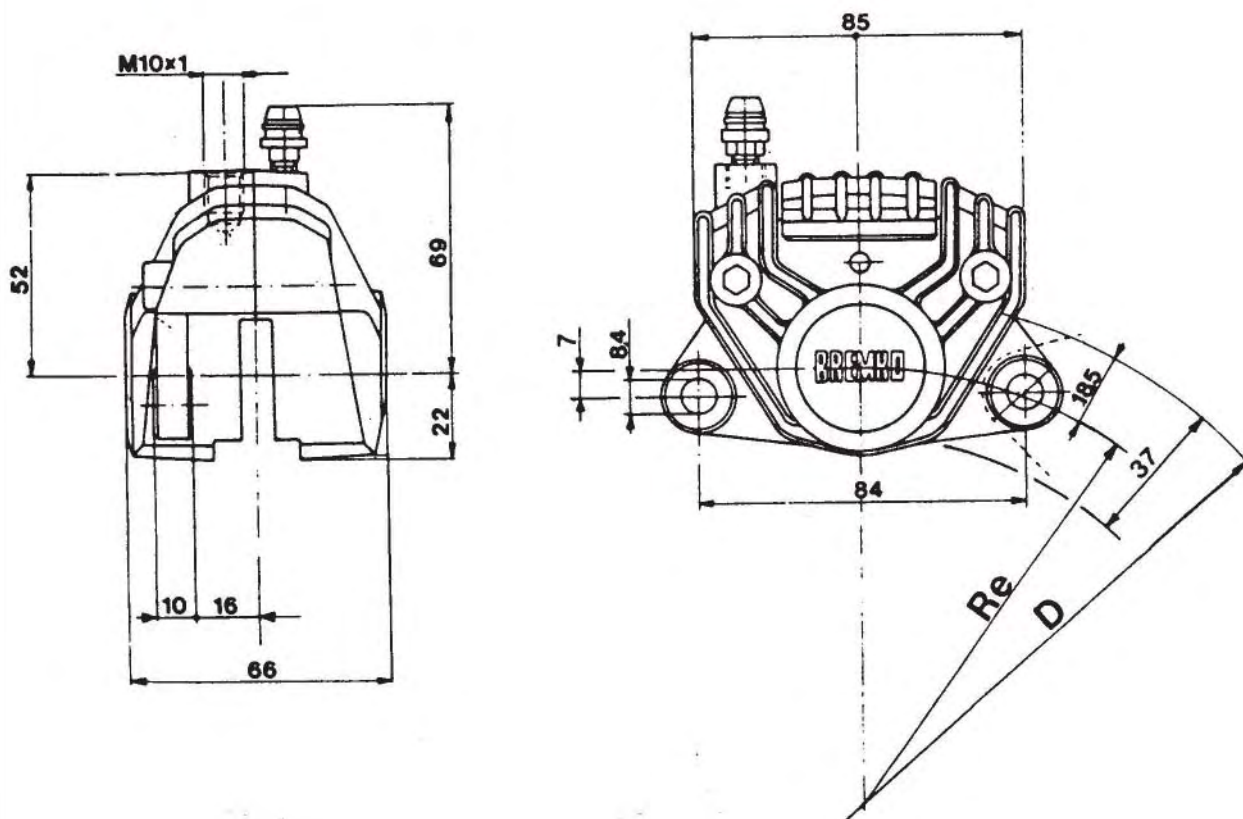
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# Hydraulic Brake Caliper

**P32e**  
**20.5161.51**



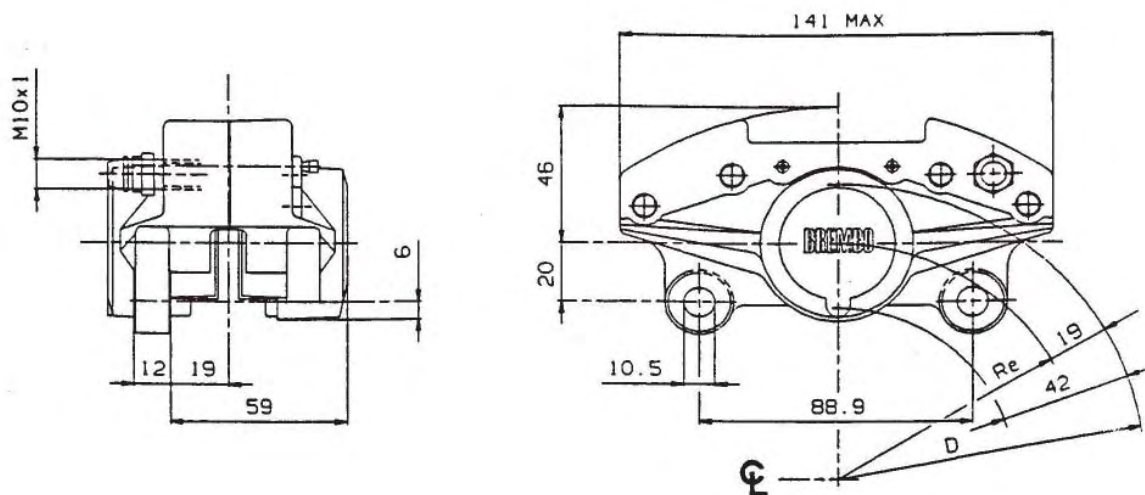
## Technical characteristics

Construction material	aluminium
Pistons number and diameter	2x32 mm
Max operating pressure	100 bar
Pads number and area	2x12 cm <sup>2</sup>
Disc diameter (D)	from 150 to 290 mm
Disc thickness, max & min worn	7-5.6 mm
Fluid displacement at 100 bar	0.85 cm <sup>3</sup>
Mounting location	top
Effective rolling radius (Re)	(D/2)-18.5 mm
Weight (with pads)	0.53 kg
Actuation Fluid:	dis. 20.5161.51 Brake fluid



# Hydraulic Brake Caliper

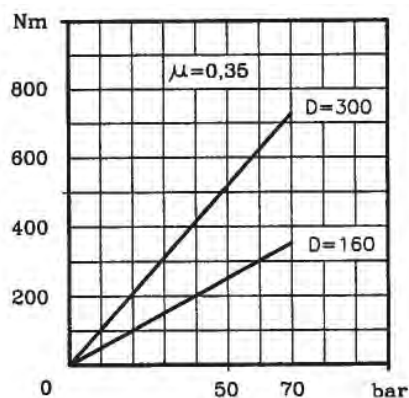
**P38d**  
**20.2945.12**



## Technical characteristics

Construction material	aluminium
Pistons number and diameter	2x38 mm
Max operating pressure	70 bar
Pads number and area	2x18.8 cm <sup>2</sup>
Disc diameter (D)	from 160 to 300 mm
Disc thickness, max & min worn	6.6-5.8 mm
Mounting location	right and left
Effective rolling radius (Re)	(D/2)-19 mm
Weight (with pads)	0.96 kg
Actuation Fluid:	dis. 20.2945.12 Brake fluid

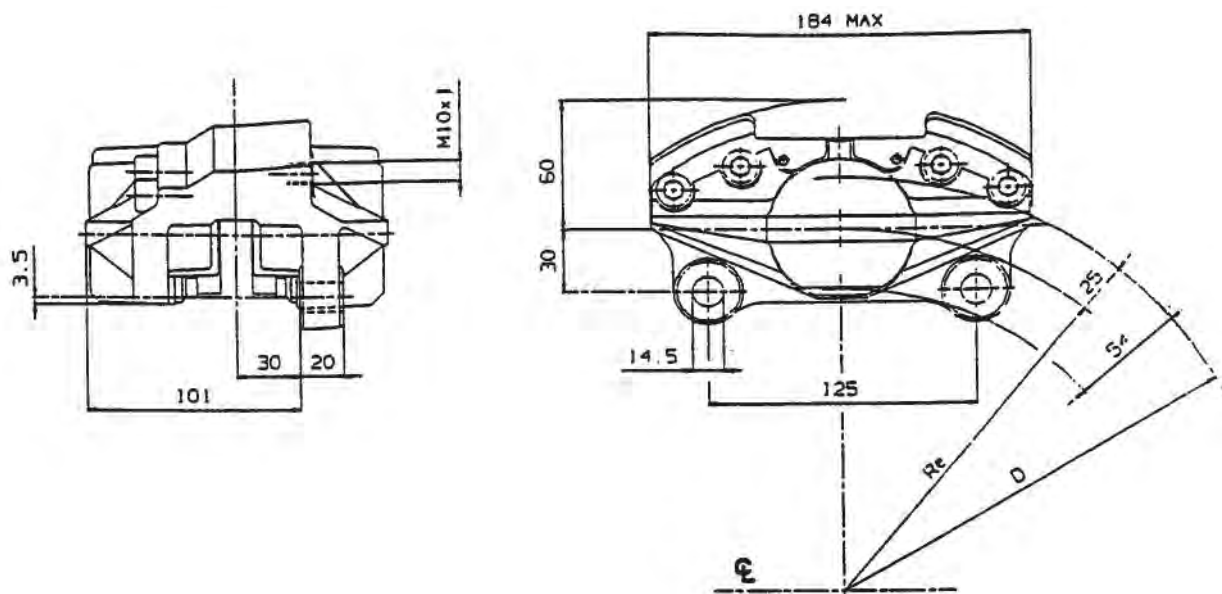
## Performances



# Hydraulic Brake Caliper

P48d

20.3195.11/31/51/71

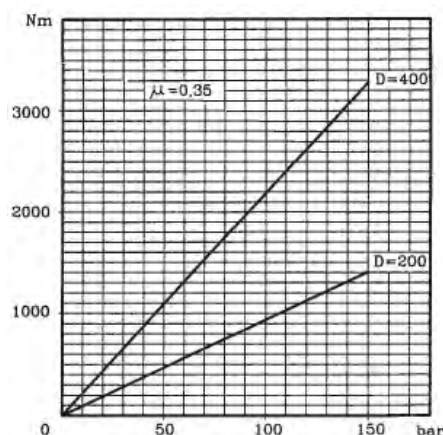


## Technical characteristics

Construction material	cast iron
Pistons number and diameter	2x48 mm
Max operating pressure	150 bar
Pads number and area	2x37 cm <sup>2</sup>
Disc diameter (D)	from 200 to 400 mm
Disc thickness, max & min worn	13-11 mm
Fluid displacement at 150 bar	3.3 cm <sup>3</sup>
Fluid displacement at 150 bar (A)	2 cm <sup>3</sup>
Mounting location	right and left
Effective rolling radius (Re)	(D/2)-25 mm
Weight (with pads)	6.4 kg
Actuation Fluid:	dis. 20.3195.11/51(A) Brake fluid dis. 20.3195.31/71(A) Hydraulic oil

(A) Brake caliper with pistons anti retracting device (for vehicles with top speed lower than 30 km/h)

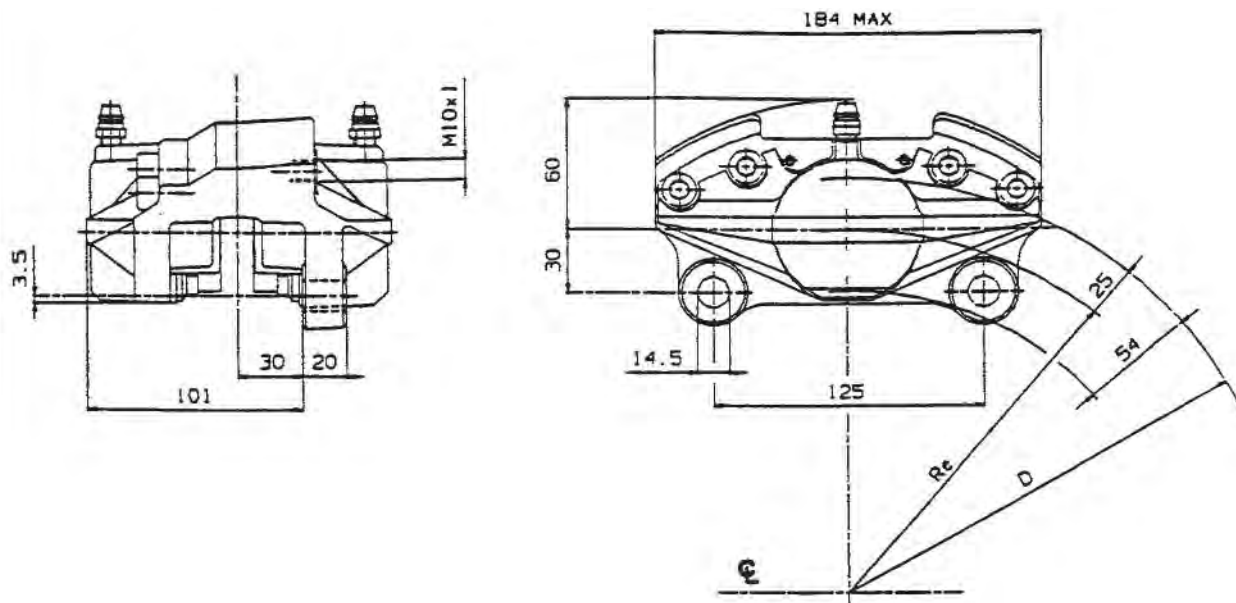
## Performances



# Hydraulic Brake Caliper

P48d

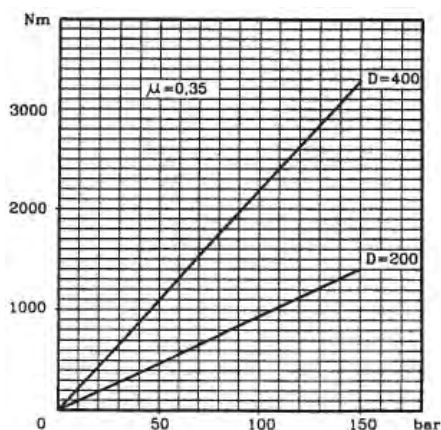
20.4522.11/31



## Technical characteristics

Construction material	cast iron
Pistons number and diameter	2x48 mm
Max operating pressure	150 bar
Pads number and area	2x37 cm <sup>2</sup>
Disc diameter (D)	from 200 to 400 mm
Disc thickness, max & min worn	13-11 mm
Fluid displacement at 100 bar	3.3 cm <sup>3</sup>
Mounting location	top
Effective rolling radius (Re)	(D/2)-25 mm
Weight (with pads)	6.4 kg
Actuation Fluid:	dis. 20.4522.11 Brake fluid dis. 20.4522.31 Hydraulic oil

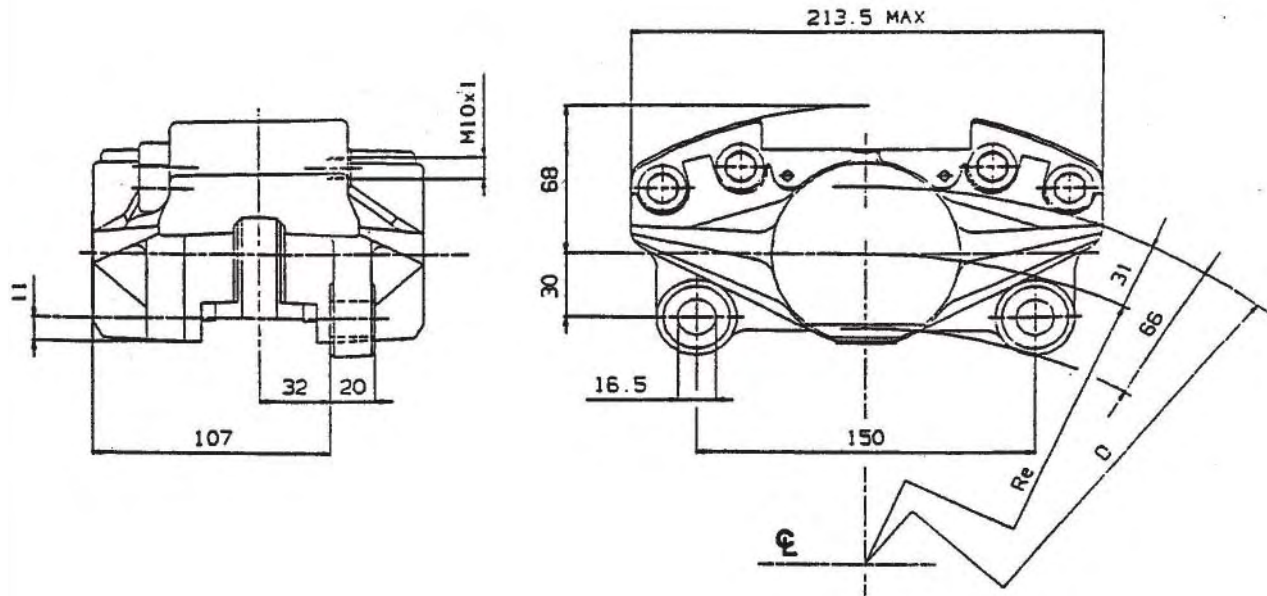
## Performances



# Hydraulic Brake Caliper

P60a

20.2846.11/31/51/71



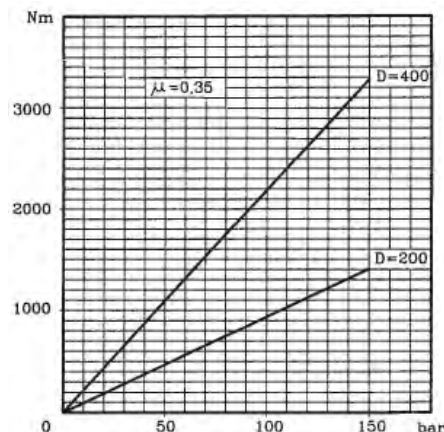
## Technical characteristics

Construction material	cast iron
Pistons number and diameter	2x60 mm
Max operating pressure	150 bar
Pads number and area	2x50 cm <sup>2</sup>
Disc diameter (D)	from 300 to 600 mm
Disc thickness, max & min worn	16-14.5 mm
Fluid displacement at 150 bar	5.7 cm <sup>3</sup>
Fluid displacement at 150 bar (A)	3.8 cm <sup>3</sup>
Mounting location	right and left
Effective rolling radius (Re)	(D/2)-31 mm
Weight (with pads)	9.35 kg

Actuation Fluid: dis. 20.2846.11/51(A) Brake fluid  
dis. 20.2846.31/71(A) Hydraulic oil

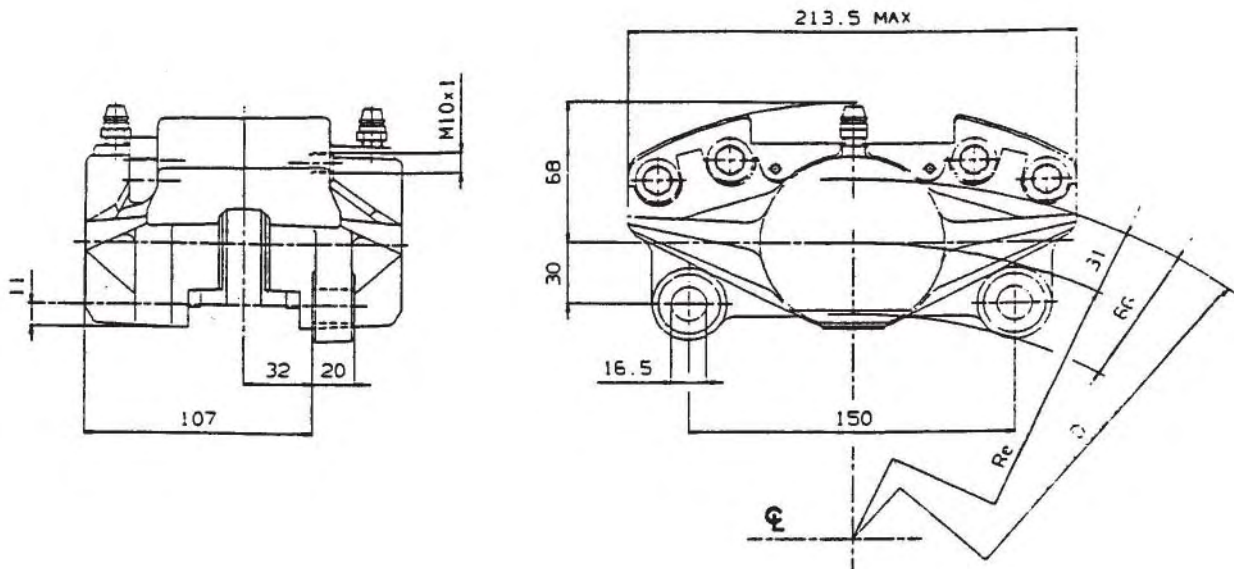
(A) Brake caliper with pistons anti retracting device (for vehicles with top speed lower than 30 km/h)

## Performances



# Hydraulic Brake Caliper

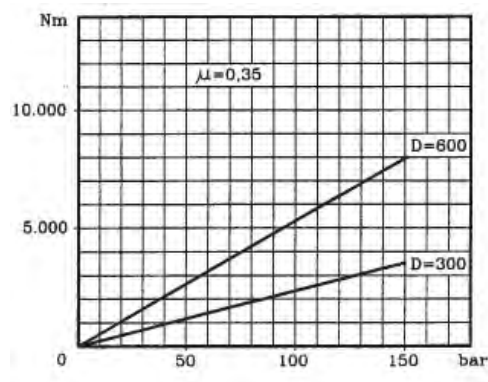
**P60a**  
**20.3662.50**



## Technical characteristics

Construction material	cast iron
Pistons number and diameter	2x60 mm
Max operating pressure	150 bar
Pads number and area	2x50 cm <sup>2</sup>
Disc diameter (D)	from 300 to 600 mm
Disc thickness, max & min worn	16-14.5 mm
Fluid displacement at 100 bar	3.8 cm <sup>3</sup>
Mounting location	right and left
Effective rolling radius (Re)	(D/2)-31 mm
Weight (with pads)	9.35 kg
Actuation Fluid:	dis. 20.3662.50 Brake fluid

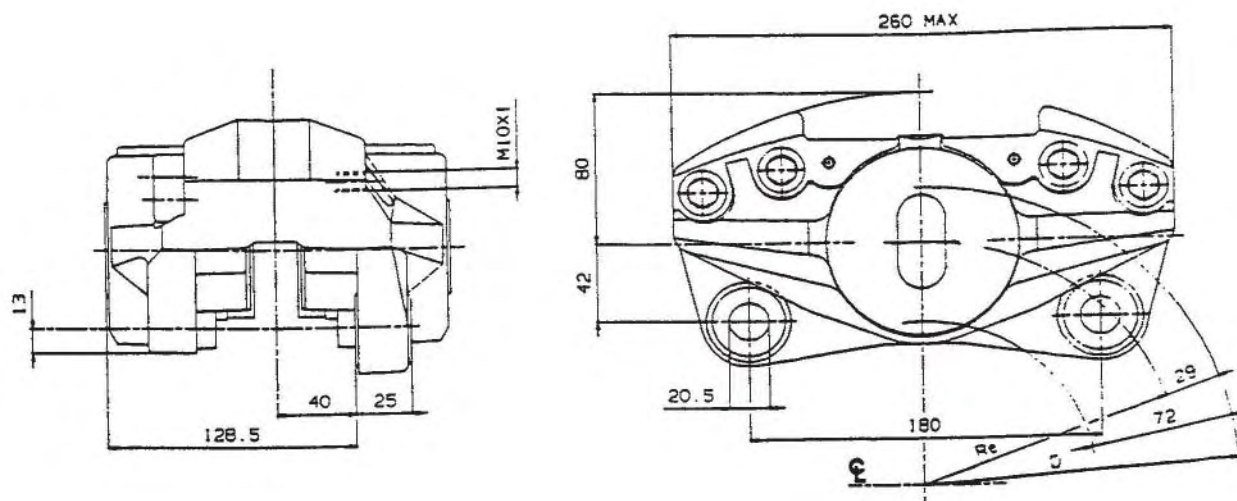
## Performances



# Hydraulic Brake Caliper

P75b

20.2802.11/31/51/71

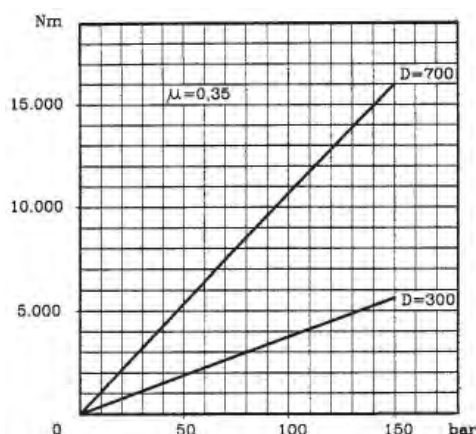


## Technical characteristics

Construction material	cast iron
Pistons number and diameter	2x75 mm
Max operating pressure	150 bar
Pads number and area	2x74.5 cm <sup>2</sup>
Disc diameter (D)	from 300 to 700 mm
Disc thickness, max & min worn	22-20 mm
Fluid displacement at 100 bar	9.2 cm <sup>3</sup>
Mounting location	right and left
Effective rolling radius (Re)	(D/2)-29 mm
Weight (with pads)	15.6 kg
Actuation Fluid:	dis. 20.2802.11/51(A) Brake fluid dis. 20.2802.31/71(A) Hydraulic oil

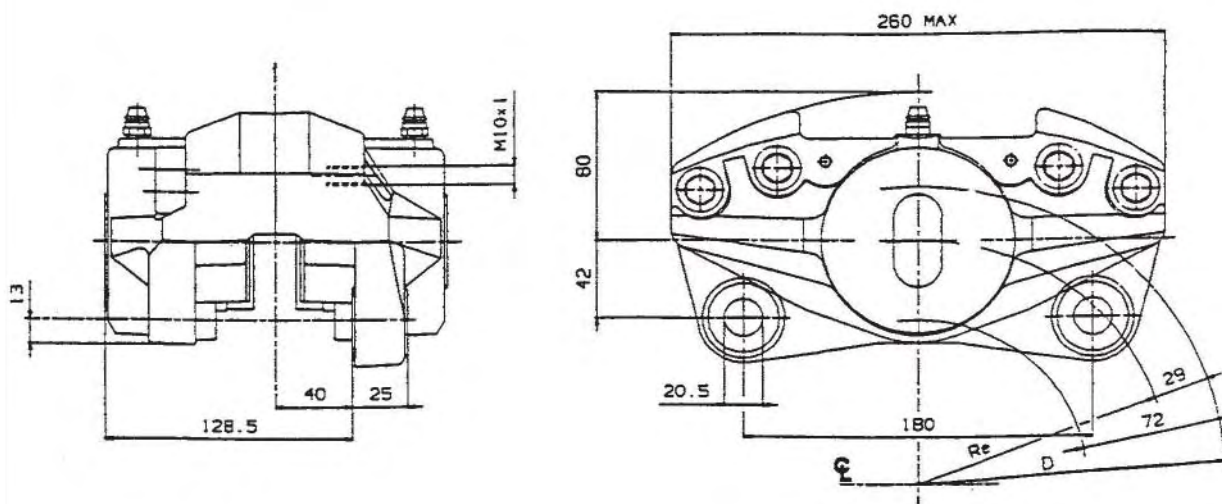
(A) Brake caliper with pistons anti retracting device (for vehicles with top speed lower than 30 km/h)

## Performances



# Hydraulic Brake Caliper

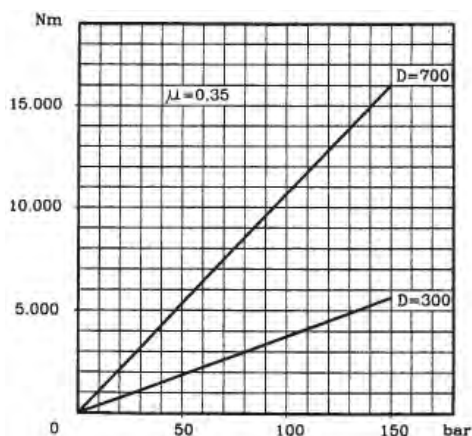
**P75b**  
**20.3100.31**



## Technical characteristics

Construction material	cast iron
Pistons number and diameter	2x75 mm
Max operating pressure	150 bar
Pads number and area	2x74.5 cm <sup>2</sup>
Disc diameter (D)	from 300 to 700 mm
Disc thickness, max & min worn	22-20 mm
Fluid displacement at 100 bar	9.2 cm <sup>3</sup>
Mounting location	top
Effective rolling radius (Re)	(D/2)-29 mm
Weight (with pads)	15.6 kg
Actuation Fluid:	dis. 20.3100.31 Hydraulic oil

## Performances

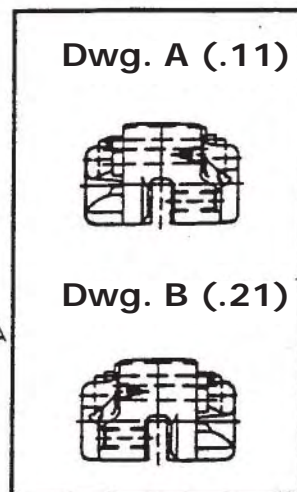
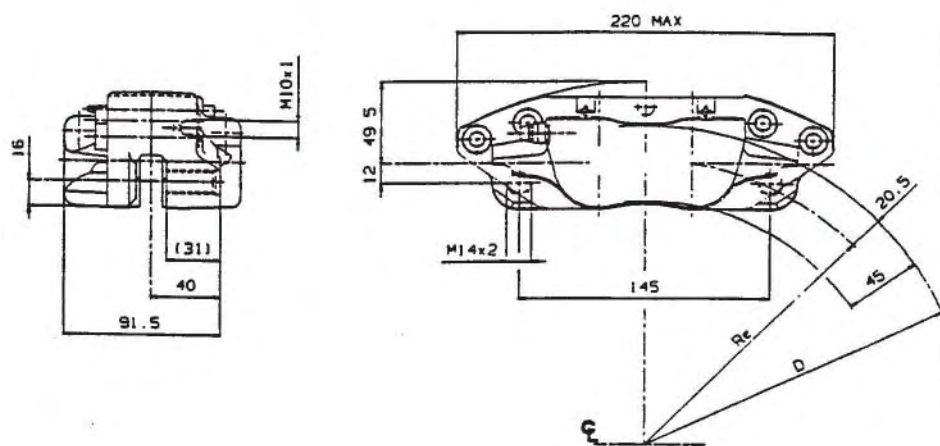


# Hydraulic Brake Caliper

P4.40a

20.4940.11/21

20.4950.11/21

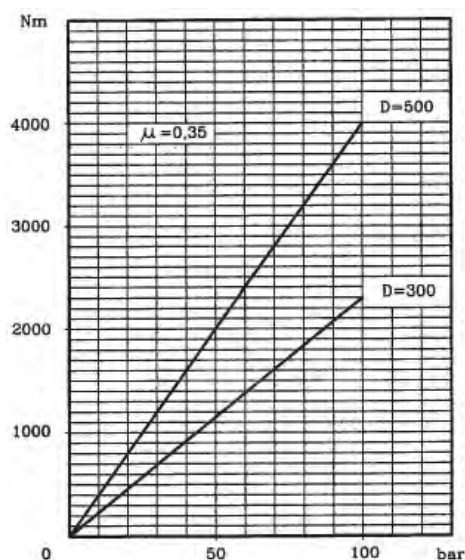


## Technical characteristics

Construction material	cast iron
Pistons number and diameter	4x40 mm
Max operating pressure	100 bar
Pads number and area	2x44 cm <sup>2</sup>
Disc diameter (D)	from 300 to 500 mm
Disc thickness, max & min worn	10.1-9 mm
Fluid displacement at 100 bar	1.8 cm <sup>3</sup>
Mounting location	top
Effective rolling radius (Re)	(D/2)-20.5 mm
Weight (with pads)	5 kg

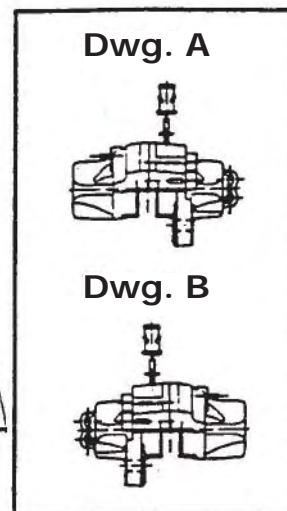
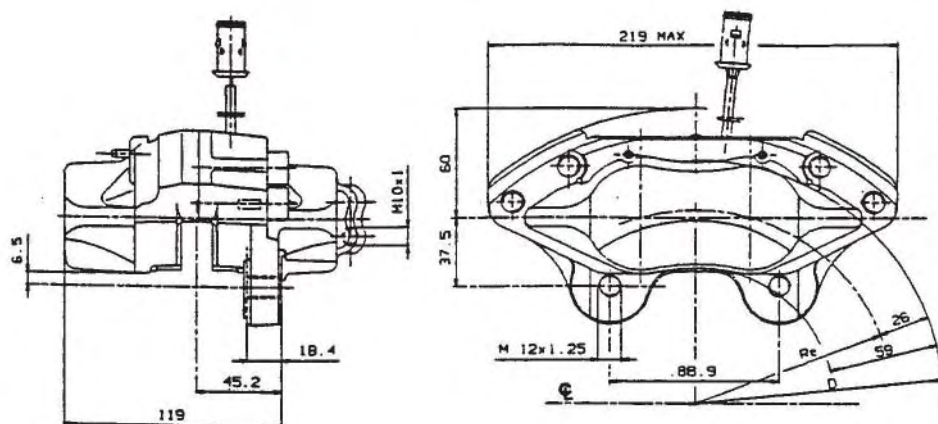
Actuation Fluid: dis. 20.4940.11/21 Brake fluid  
dis. 20.4940.11/21 Hydraulic oil

## Performances



# Hydraulic Brake Caliper

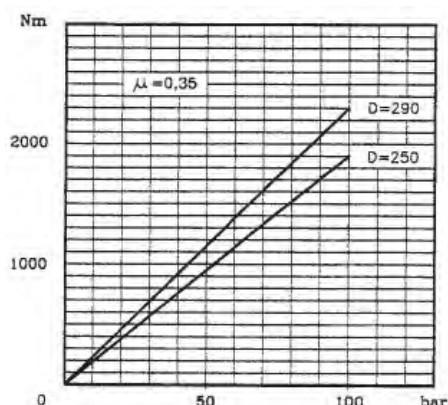
P4.42  
20.4910.12/22



## Technical characteristics

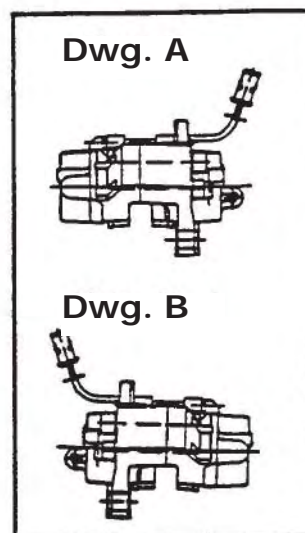
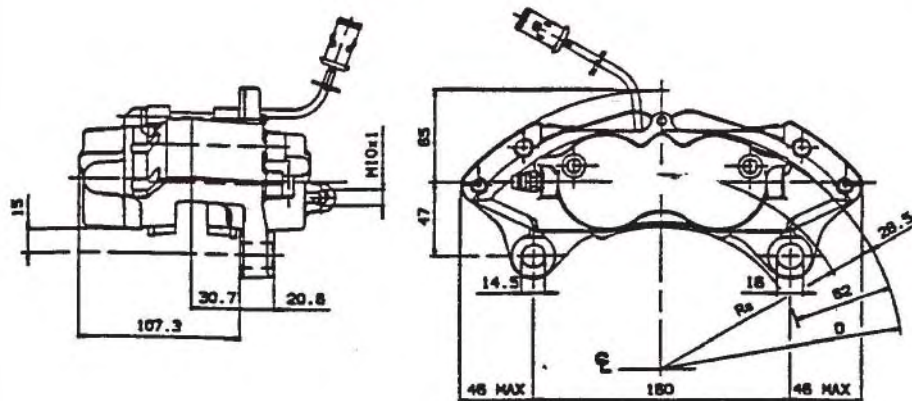
Construction material	cast iron
Pistons number and diameter	4x42 mm
Max operating pressure	100 bar
Pads number and area	2x59 cm <sup>2</sup>
Disc diameter (D)	from 250 to 290 mm
Disc thickness, max & min worn	14.2-12.8 mm
Fluid displacement at 100 bar	2.1 cm <sup>3</sup>
Mounting location	left
Effective rolling radius (Re)	(D/2)-26 mm
Type	20.4910.12 Dwg. A / 20.4910.22 Dwg. B
Weight (with pads)	7.5 kg
Actuation Fluid:	dis. 20.4910.12/22 Brake fluid

## Performances



# Hydraulic Brake Caliper

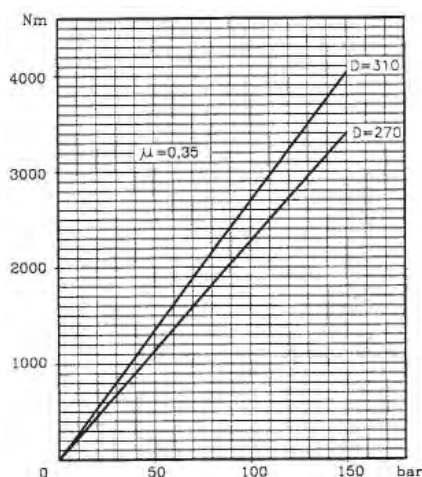
P4.44  
20.5150.10/20



## Technical characteristics

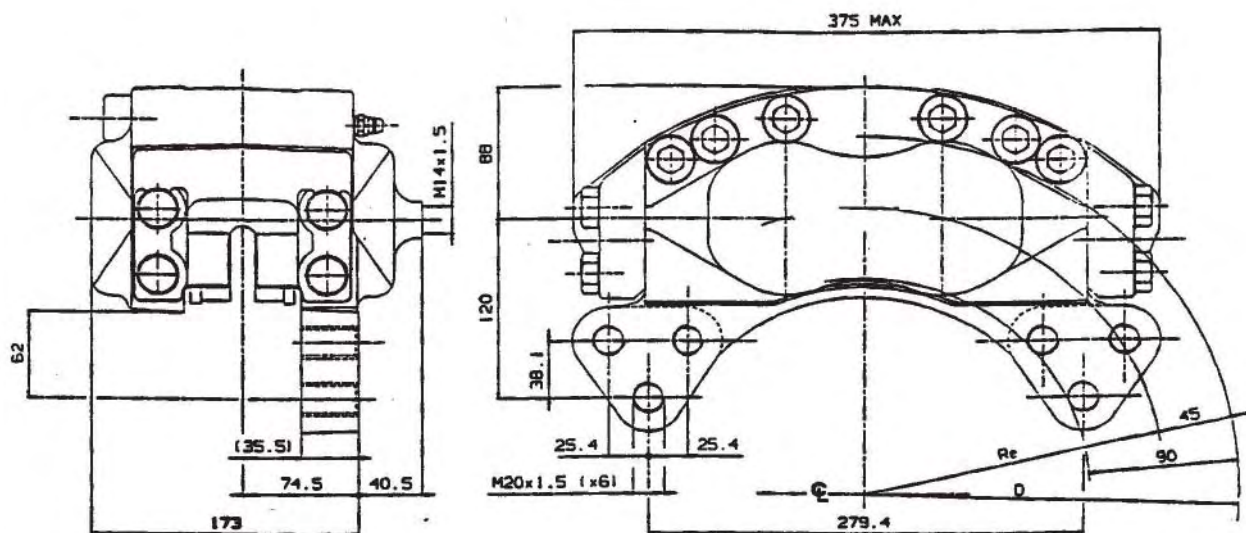
Construction material	cast iron
Pistons number and diameter	4x44 mm
Max operating pressure	150 bar
Pads number and area	2x76 cm <sup>2</sup>
Disc diameter (D)	from 270 to 310 mm
Disc thickness, max & min worn	16.2-13 mm
Fluid displacement at 100 bar	3.6 cm <sup>3</sup>
Mounting location	right and left
Effective rolling radius (Re)	(D/2)-28.5 mm
Weight (with pads)	7.5 kg
Actuation Fluid:	dis. 20.5110.10/20 Brake fluid

## Performances



# Hydraulic Brake Caliper

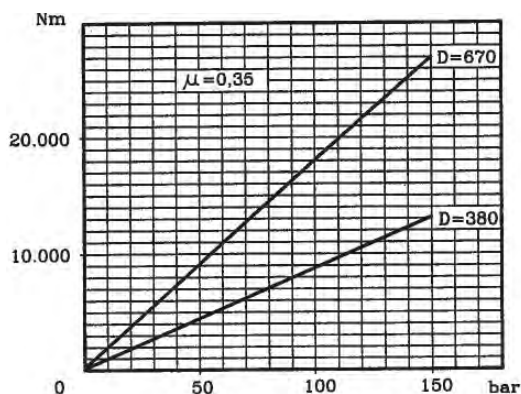
**P4.75a**  
**20.2899.13**



## Technical characteristics

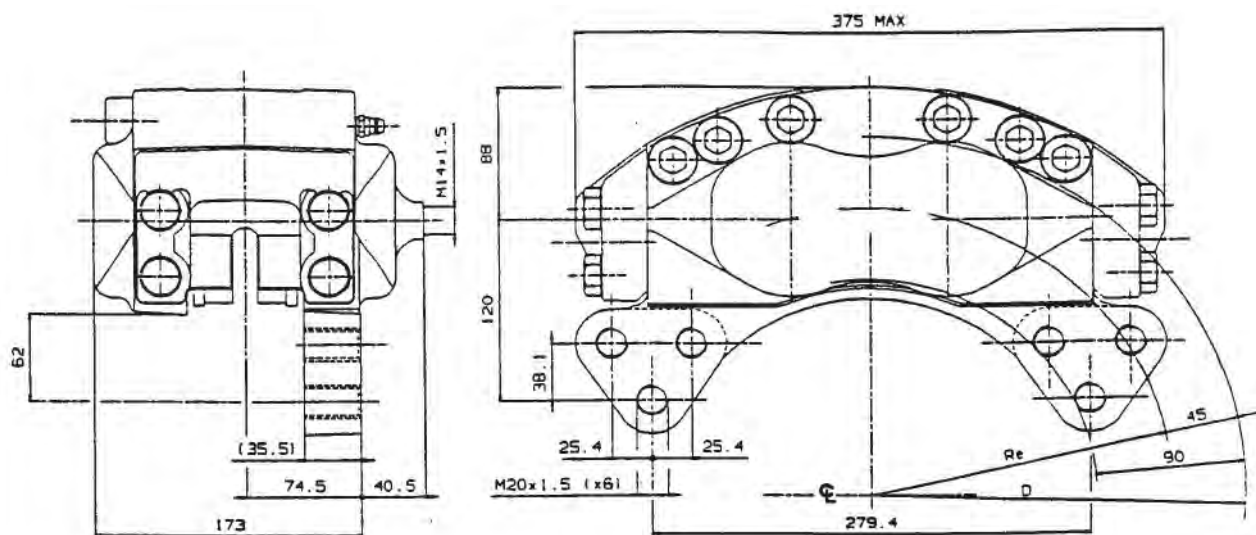
Construction material	cast iron
Pistons number and diameter	4x75 mm
Max operating pressure	150 bar
Pads number and area	2x153 cm <sup>2</sup>
Disc diameter (D)	from 380 to 670 mm
Disc thickness, max & min worn	13.2-11.5 mm
Fluid displacement at 100 bar	12 cm <sup>3</sup>
Mounting location	right, top and left
Effective rolling radius (Re)	(D/2)-45 mm
Weight (with pads)	39.2 kg
Actuation Fluid:	dis. 20.2899.13 Brake fluid

## Performances



# Hydraulic Brake Caliper

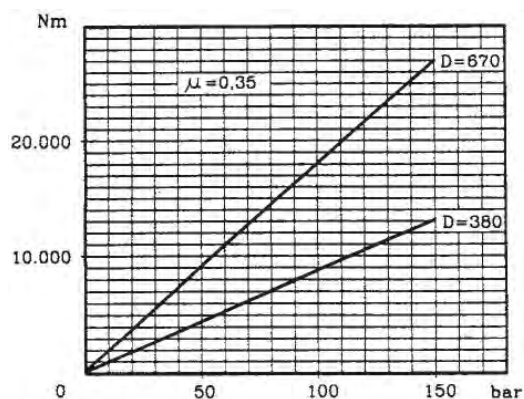
**P4.75a**  
**20.2899.74/84**



## Technical characteristics

Construction material	cast iron
Pistons number and diameter	4x75 mm
Max operating pressure	150 bar
Pads number and area	2x210 cm <sup>2</sup>
Disc diameter (D)	from 380 to 670 mm
Disc thickness, max & min worn	16.5-14.8 mm
Fluid displacement at 100 bar	14 cm <sup>3</sup>
Mounting location	right, top and left
Effective rolling radius (Re)	(D/2)-45 mm
Weight (with pads)	40.7 kg
Actuation Fluid:	dis. 20.2899.74 Brake fluid dis. 20.2899.84 Hydraulic oil

## Performances



# Spare Parts for brake calipers

Caliper	Lining set	Seal set	Pin set	Bleeder set	Piston set	Rubber boot	Spring set	Casing set	Cover set	Plate set	Spacer set
20.2802.01		120.3250.10	120.3248.10	105.3246.11	120.5179.20	105.1502.10					
20.2802.11	107.1710.24	120.3250.10	120.3248.10	105.3246.11	120.5179.20	105.1502.10					
20.2802.15	107.1710.60	120.3250.10	120.3248.10	105.3387.20	120.5179.20	105.1502.10					107.3551.11
20.2802.31	107.1710.24	120.3250.11	120.3248.10	105.3246.11	120.5179.20	105.1502.10					
20.2802.51	107.1710.24	120.3250.10	120.3248.20	105.3246.11	120.5179.10	105.1502.10	120.2782.20				
20.2802.71	107.1710.24	120.3250.11	120.3248.20	105.3246.11	120.5179.10	105.1502.10	120.2782.20				
20.2805.55	107.1710.50	120.3250.10	120.3248.20	105.3246.11	120.5179.10	105.1502.10	120.2782.20				107.3551.11
20.2805.65	107.1710.60	120.3250.10	120.3248.20	105.3246.11	120.5179.10	105.1502.10	120.2782.20				107.3551.11
20.2846.11	107.2850.20	120.3249.12	120.3247.10	105.3246.11	120.2849.20	105.1502.10					
20.2846.31	107.2850.20	120.3249.13	120.3247.10	105.3246.11	120.2849.20	105.1502.10					
20.2846.51	107.2850.20	120.3249.12	120.3847.50	105.3246.11	120.2849.10	105.1502.10	120.2782.10				
20.2846.71	107.2850.20	120.3249.13	120.3847.50	105.3246.11	120.2849.10	105.1502.10	120.2782.10				
20.2899.13	107.4189.17	120.3203.16		105.3794.11	120.5179.40	105.1502.10		120.3560.10		120.3228.10	
20.3100.31	107.1710.24	120.3250.11	120.3248.10	105.3246.11	120.5179.20	105.1502.10					
20.3195.01		120.3203.10	120.3204.10	105.3246.11	120.3198.20	105.1502.10					
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20.3195.31	107.3199.20	120.3203.11	120.3204.10	105.3246.11	120.3198.20	105.1502.10					
20.3195.51	107.3199.20	120.3203.10	120.3892.15	105.3246.11	120.3198.10	105.1502.10	120.2782.10				
20.3195.71	107.3199.20	120.3203.11	120.3892.15	105.3246.11	120.3198.10	105.1502.10	120.2782.10				
20.4522.11	107.3199.20	120.3203.10	120.3204.10	105.3246.11	120.3198.20	105.1502.10					
20.4522.31	107.3199.20	120.3203.11	120.3204.10	105.3246.11	120.3198.20	105.1502.10					
20.2899.74	107.4193.50	120.3203.16		105.3794.11	120.5179.40	105.1502.10		120.3560.10		120.3228.12	
20.2899.84	107.4193.50	120.3203.24		105.3794.11	120.5179.40	105.1502.10		120.3560.10		120.3228.12	
20.4940.11	107.4943.11	120.3203.21	120.3892.20	105.2812.13	120.3888.60						
20.4940.21	107.4943.11	120.3203.21	120.3892.20	105.2812.13	120.3888.60						
20.4950.11	107.4943.11	120.3203.53	120.3892.20	105.2812.13	120.3888.60						
20.4950.21	107.4943.11	120.3203.53	120.3892.20	105.2812.13	120.3888.60						
20.4960.11	107.4943.11	120.3203.52	120.3892.25	105.2812.13	120.3888.60						
20.4960.21	107.4943.11	120.3203.52	120.3892.25	105.2812.13	120.3888.60						
20.4910.12	107.4146.45	120.3203.14	220.3204.14	105.3246.16	120.4909.10			120.3905.10			
20.4910.22	107.4146.45	120.3203.14	220.3204.14	105.3246.16	120.4909.10			120.3905.10			
20.3662.50	107.2850.20	120.3249.12	120.3247.50	105.3246.11	120.2849.10	105.1502.10	120.2782.10				
20.2945.12	107.4183.20	120.2741.40	120.2742.10	105.3387.20	120.2252.20	105.1502.10					
20.5150.10	107.4146.57	120.3203.20	122.4839.70	105.3246.12	120.4909.20		120.5158.10				
20.5150.20	107.4146.57	120.3203.20	122.4839.70	105.3246.12	120.4909.20		120.5158.10				
20.5161.50	107.2686.32	120.2799.10	120.2800.10	105.2087.12	120.2679.20	105.1502.10			120.2688.10		
20.3556.40	107.4183.20	120.2741.10	120.2742.10	105.3387.10	120.2252.20	105.1502.10			120.3254.10		

# Excerpt from Product Range

**windpower**  
renewable solutions



Founding Member



windpower renewable solutions Ltd. are a founding member of the Global Wind Alliance, an association of global experts in the operation and maintenance of wind farms which brings together some of the finest components manufacturers and experienced engineers from the wind industry and beyond.