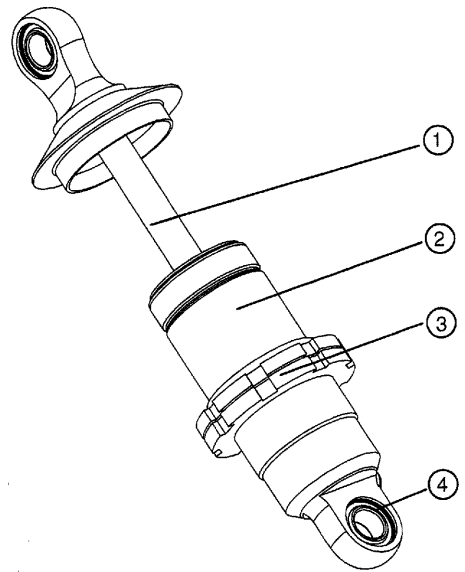


SACHS Racing SP 1

Technical Features:

- Gas pressurized mono tube construction
- Independent mounting position
- Bending resistant \varnothing 15mm dia. piston rod ①
- Lightweight aluminum outer tube with a highly wear resistant hard coated surface ②
- Adjustable thread spring seat, anodised ③
- Low internal friction for instantly responsive damping
- Choice of \varnothing 12.7mm or \varnothing 15mm mounting bolt holes ④
- Setting on customer requirement



Order Numbers:

88 1700 114 400 \varnothing 15.0 mm mounting hole

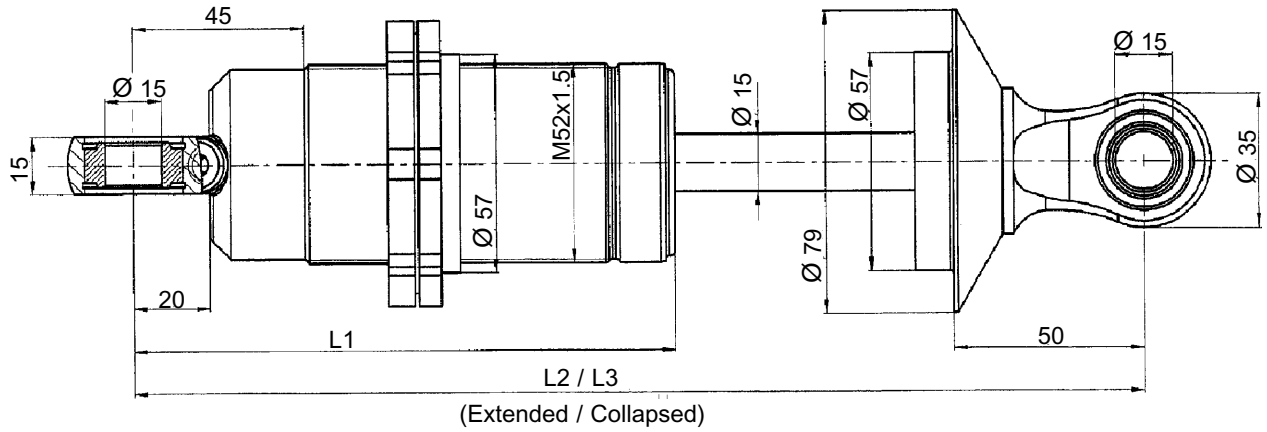
88 1700 114 401 \varnothing 12.7 mm mounting hole

Please note that the SP range is designed for motor sport use and specifications may change without prior notice.

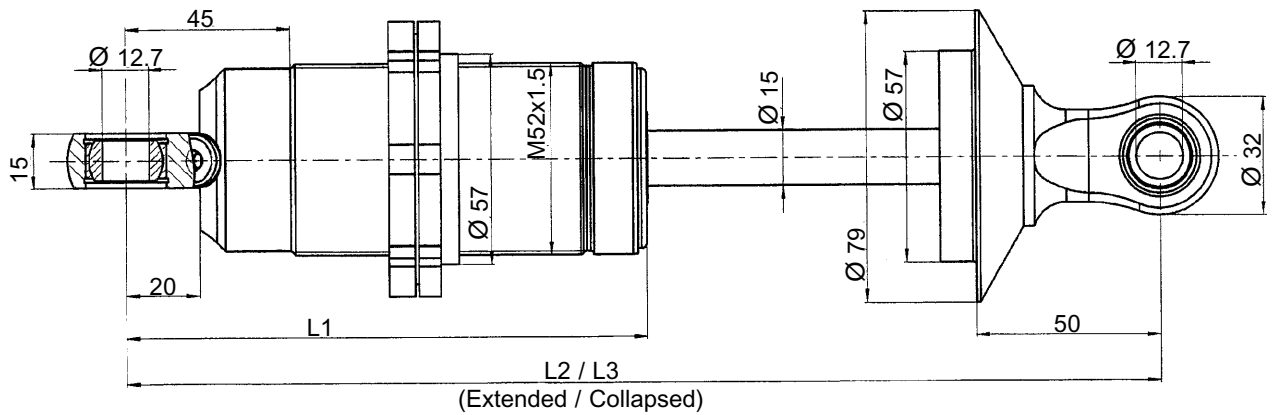
\varnothing = Diameter

SACHS Racing SP1

Order Example: 88 1700 114 400 - 203 - E - 300 / 150



Order Example: 88 1700 114 401 - 203 - E - 300 / 150



Ø = Diameter
All dimensions in mm

SACHS Racing SP1

Order Example: 88 1700 114 400 - 203 - E - 300 / 150

part number

body length (L1)

damping performance
rebound / bump (in daN)
according to customer specification or sample

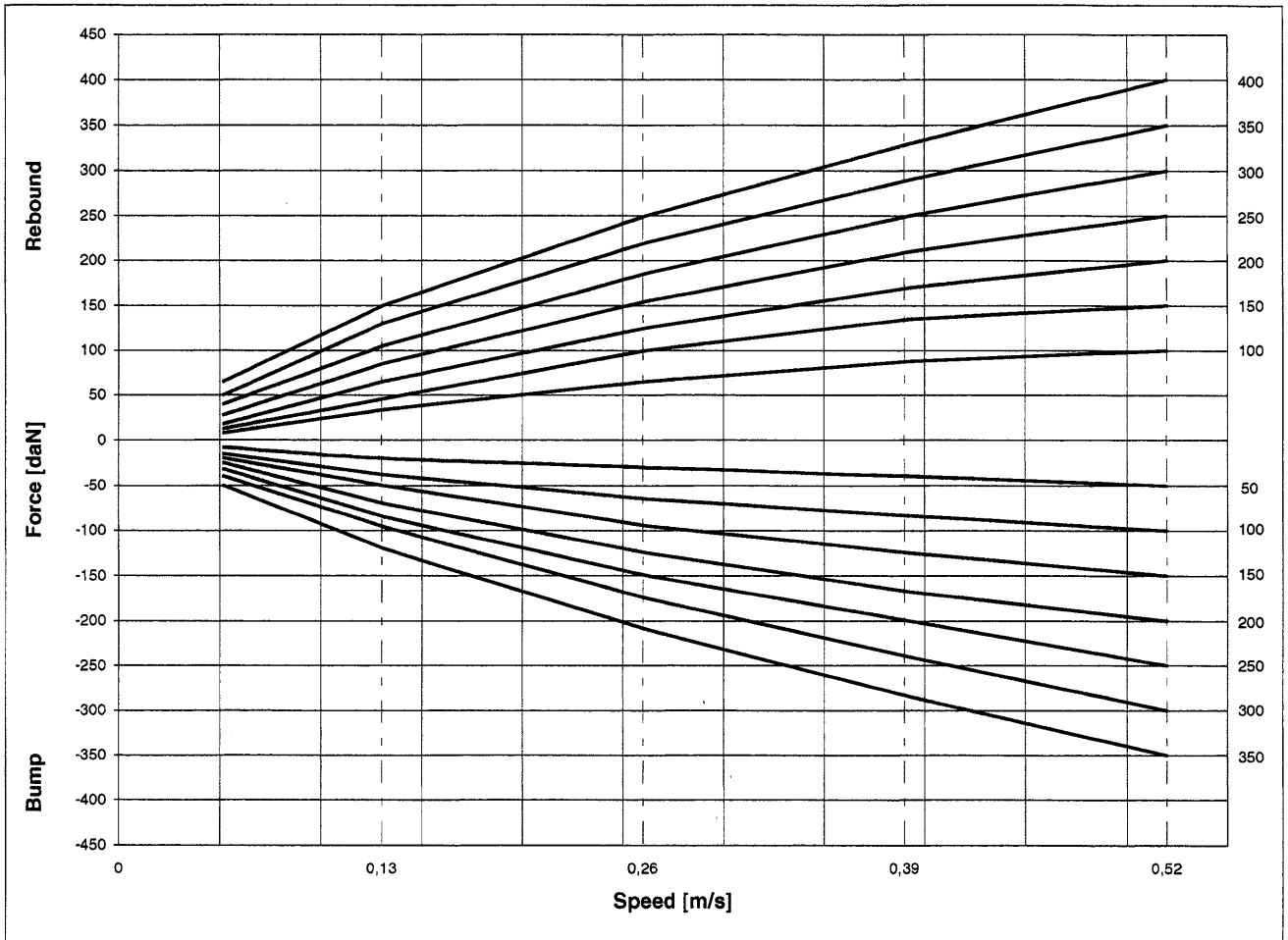
identification letter

ID Letter	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R	S
Stroke	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
L1	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3
143	235 195																
153	245 205 255 205																
163	255 215 265 215 275 215																
173	265 225 275 225 285 225 295 225																
183	275 235 285 235 295 235 305 235 315 235																
193	285 245 295 245 305 245 315 245 325 245 335 245																
203		305 255 315 255 325 255 335 255 345 255 355 255															
213			325 265	335 265	345 265	355 265	365 265	375 265									
223				345 275	355 275	365 275	375 275	385 275	395 275								
233					365 285	375 285	385 285	395 285	405 285	415 285							
243						385 295	395 295	405 295	415 295	425 295	435 295	445 295	455 295				
253							405 305	415 305	425 305	435 305	445 305	455 305					
263								425 315	435 315	445 315	455 315	465 315	475 315				
273									445 325	455 325	465 325	475 325	485 325	495 325			
283										465 335	475 335	485 335	495 335	505 335	515 335		
293											485 345	495 345	505 345	515 345	525 345	535 345	
303												505 355	515 355	525 355	535 355	545 355	555 355
313													525 365	535 365	545 365	555 365	565 365
323														545 375	555 375	565 375	575 375
333															565 385	575 385	585 385

All dimensions in mm

Setting Examples

SACHS Racing SP 1



Available settings for compression- and rebound- damping.

Choose combination from diagram above, i.e.

Bump	Rebound
250 daN	100 daN

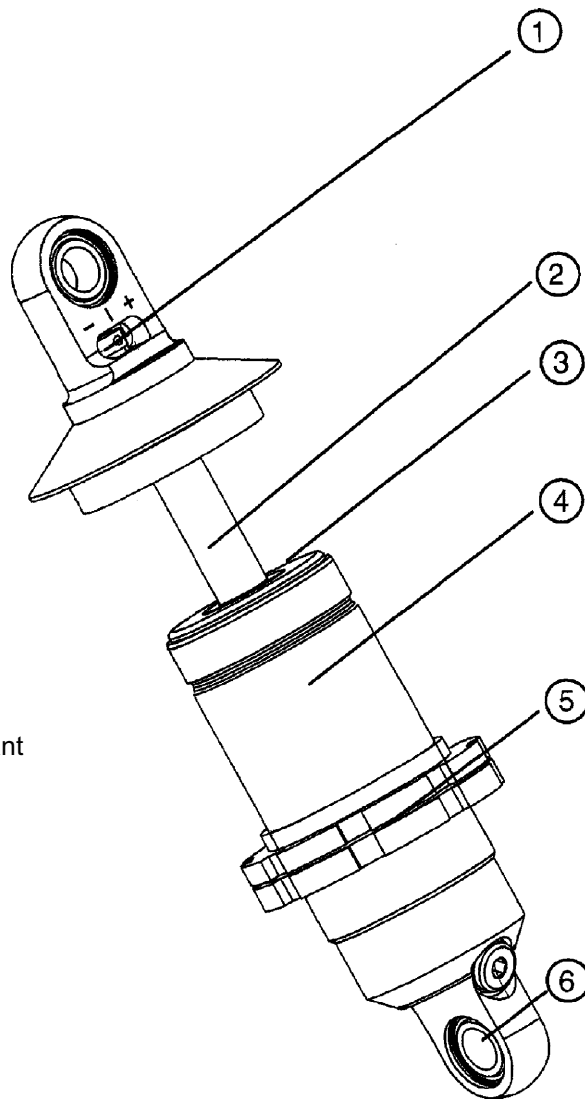
If requested, a special setting is possible.

SACHS Racing SP2

Adjustable Performance Shock Absorber

Technical Features:

- Gas pressurized mono tube construction
- No external compensation reservoir required
- Independent bump and rebound adjustment
- Infinitely adjustable rebound ①
- Four different basic settings available
- Large \varnothing 15mm dia. hard chromed solid piston rod ②
- Bump damping adjustment via a grid system located at the piston rod ③
- Lightweight aluminum outer tube with a highly wear resistant hard coated surface ④
- Adjustable aluminum spring seat, anodised ⑤
- Low internal friction for instantly responsive damping
- Low clearance PTFE lined rose joints with a \varnothing mm mounting hole ⑥



Order Number:

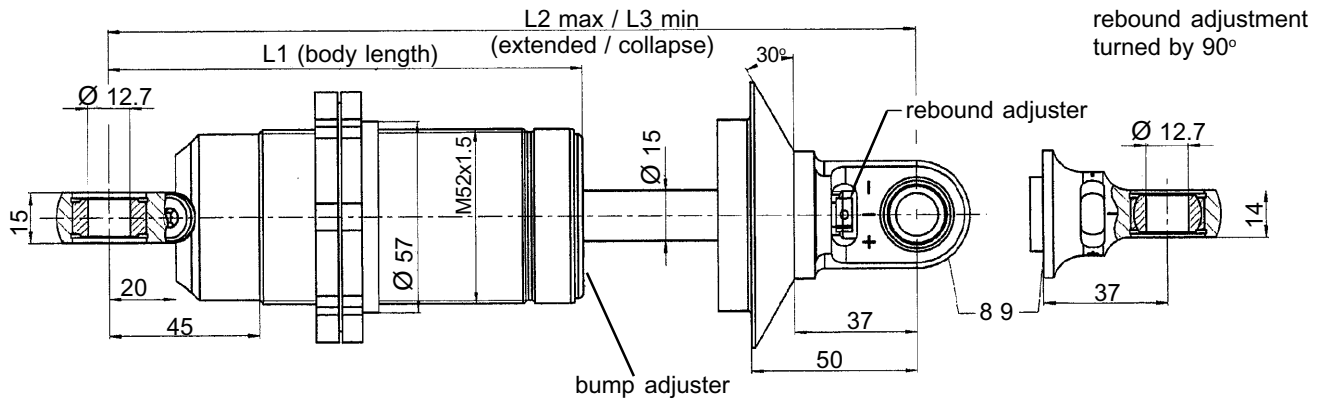
00 1700 114 402

Please note that the SP range is designed for motor sport use and specifications may change without prior notice.

\varnothing = Diameter

SACHS Racing SP2

Order Example: 88 1700 114 402 - 203 - E - 2 - 8



Ø = Diameter
All dimensions in mm

SACHS Racing SP2

Order Example: 88 1700 114 402 - 203 - E - 2 - 8

part number

body length (L-1)

identification letter

identification number top eye

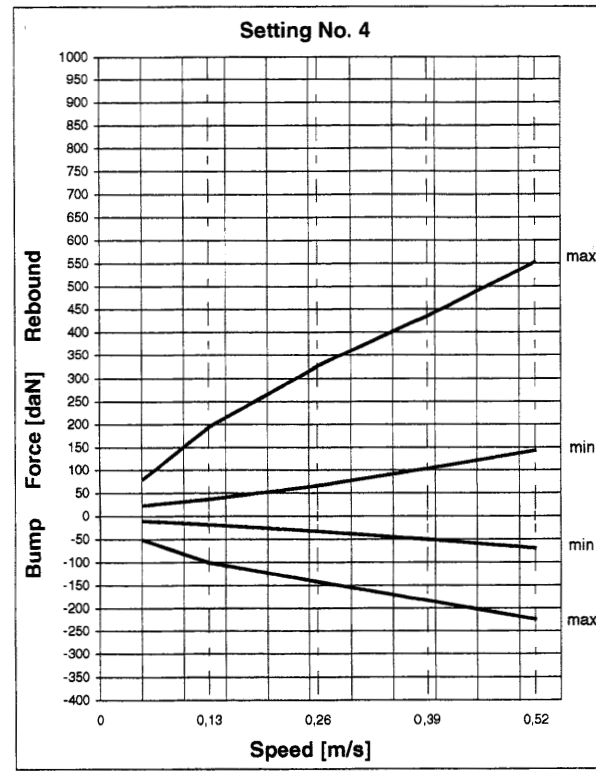
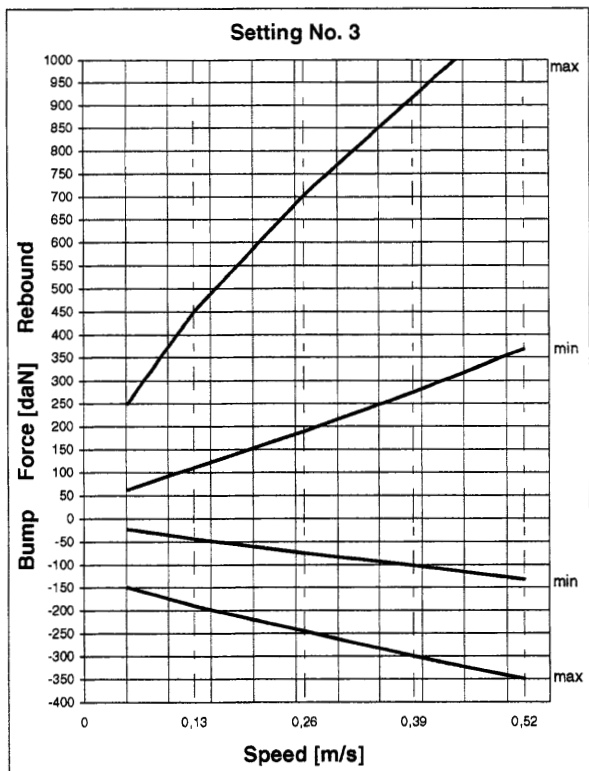
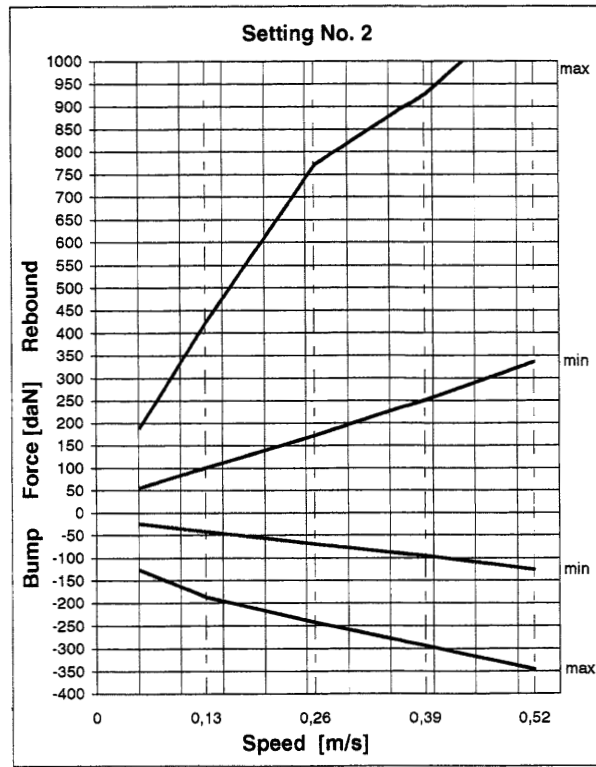
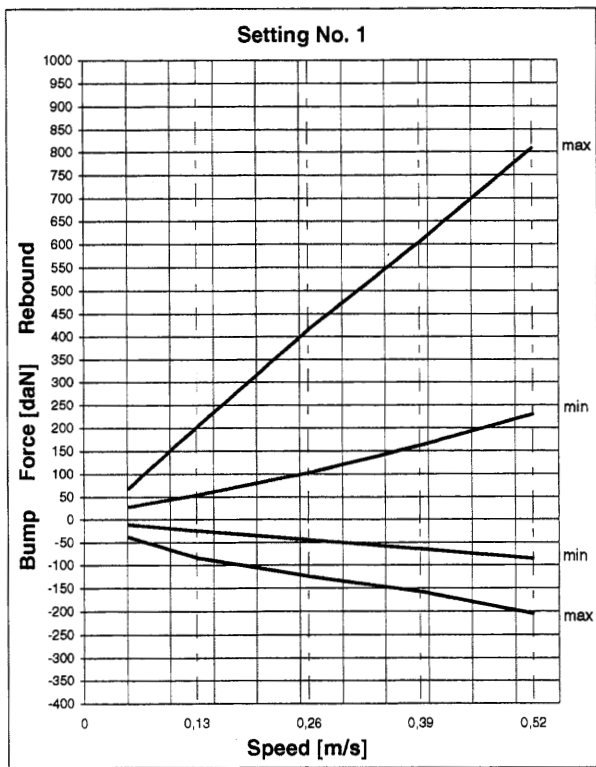
setting (see setting examples)

ID Letter	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R	S
Stroke	38	48	58	68	78	88	98	108	118	128	138	148	158	168	178	188	198
L1	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3
143	235 197																
153	245 207	255 207															
163	255 217	265 217	275 217														
173	265 227	275 227	285 227	295 227													
183	275 237	285 237	295 237	305 237	315 237												
193	285 247	295 247	305 247	315 247	325 247	335 247											
203		305 257	315 257	325 257	335 257	345 257	355 257										
213			325 267	335 267	345 267	355 267	365 267	375 267									
223				345 277	355 277	365 277	375 277	385 277	395 277								
233					365 287	375 287	385 287	395 287	405 287	415 287							
243						385 297	395 297	405 297	415 297	425 297	435 297						
253							405 307	415 307	425 307	435 307	445 307	455 307					
263								425 317	435 317	445 317	455 317	465 317	475 317				
273									445 327	455 327	465 327	475 327	485 327	495 327			
283										465 337	475 337	485 337	495 337	505 337	515 337		
293											485 347	495 347	505 347	515 347	525 347	535 347	
303												505 357	515 357	525 357	535 357	545 357	555 357
313													525 367	535 367	545 367	555 367	565 367
323														545 377	555 377	565 377	575 377
333															565 387	575 387	585 387

All dimensions in mm

Settings SP2

Please note: These example curves represent Sachs factory settings.

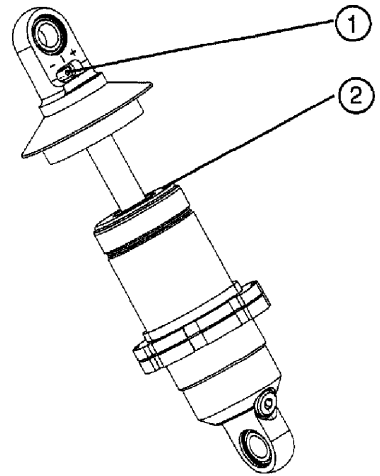


Setting Instructions

SACHS-Racing Shock Absorber SP2

SACHS Racing SP2 racing shock absorbers are independently adjustable for bump and rebound.

- Presentation Type SP2
- Rebound setting located on the piston rod ①
- Bump setting located at the piston rod ② (under the cover)



How to Change the Setting:

Rebound:

The shock absorbers come with a basic setting. This is identified by a mark at the setting ring. The setting range is shown on the diagram sheet.



Bump:

Bump absorption may be adjusted by indexing depress setting stop into the guide. Turn the outer tube in the desired direction (+hard, -soft) until the index click is felt. After this adjustment, please be sure that the setting stop returns to its original position.



Rebound Adjustment Tool:

00 1795 999 031

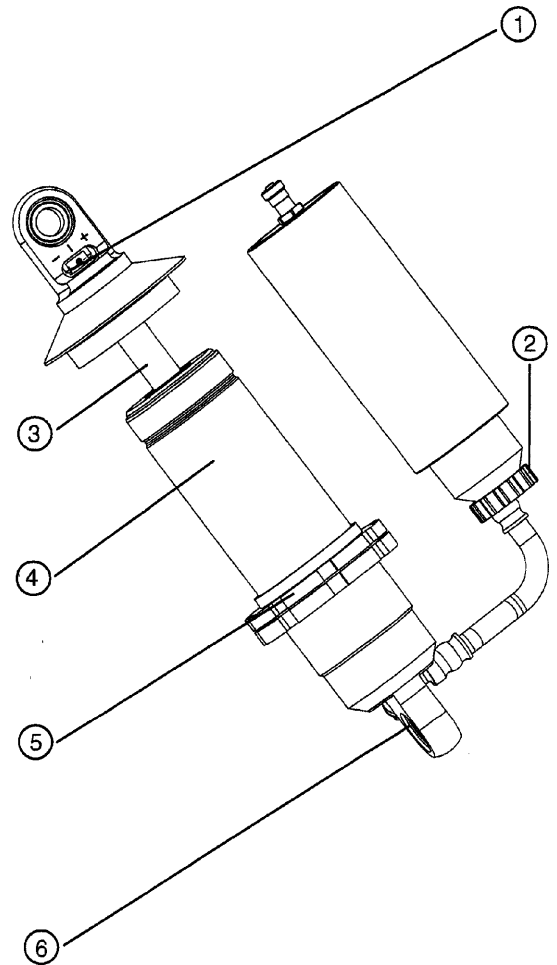
The shock absorbers are nitrogen charged to ensure instantly responsive damping under the toughest racing conditions.

SACHS Racing SP3

Adjustable Performance Shock Absorber

Technical Features:

- Gas pressurized mono tube construction with external compensation reservoir
- Bump and rebound adjustment while installed
- Infinitely adjustable rebound ①
- Adjustable bump setting via grid system on the compensation reservoir ②
- 8 different basic settings available
- Ø 15mm dia. hard chromed solid piston rod ③
- Lightweight aluminium outer tube with a highly wear resistant hard coated surface ④
- Adjustable aluminum spring seat, anodised ⑤
- Low internal friction for instantly responsive damping
- Low clearance PTFE lined rose joints with Ø 12.7mm mounting hole ⑥



Part Number:

88 1700 114 403

Please note that the SP range is designed for motor sport use and specifications may change without prior notice.

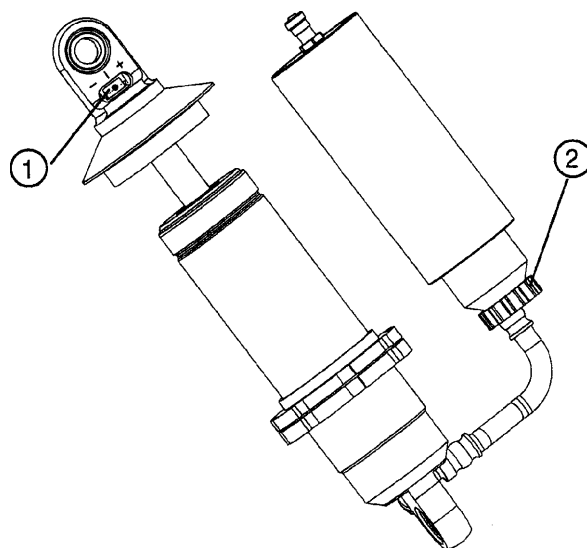
Ø = Diameter

Setting Instructions

SACHS-Racing Shock Absorber SP3

SACHS Racing SP3 racing shock absorbers are independently adjustable for bump and rebound.

- Presentation Type SP3
- Rebound setting located on the piston rod ①
- Bump setting located on the external compensation reservoir ②

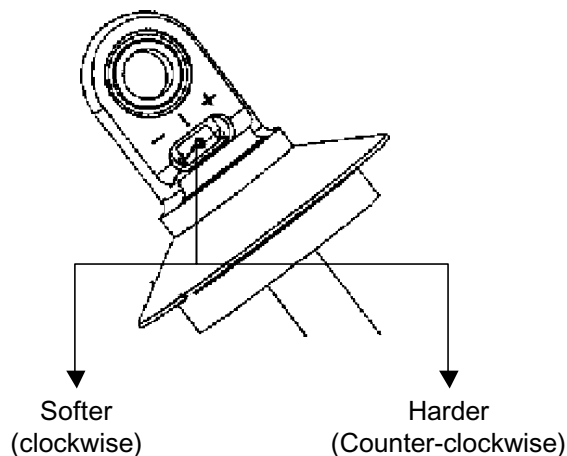


How to Change the Setting:

Rebound:

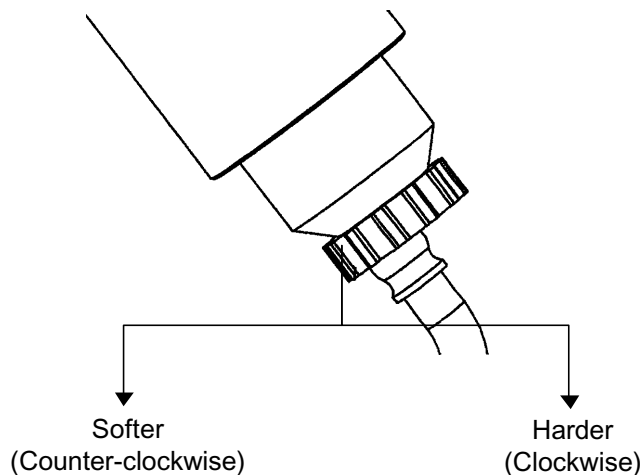
The shock absorbers come with a basic setting. This is identified by a mark at the setting ring. The setting range is shown on the diagram sheet.

Adjustment direction



Bump:

Bump absorption may be adjusted by index notches at the compensation reservoir. The direction to count the index notches starts from the softest setting (at 0).



Rebound Adjustment Tool:

00 1795 999 031

Gas Filling Tool:

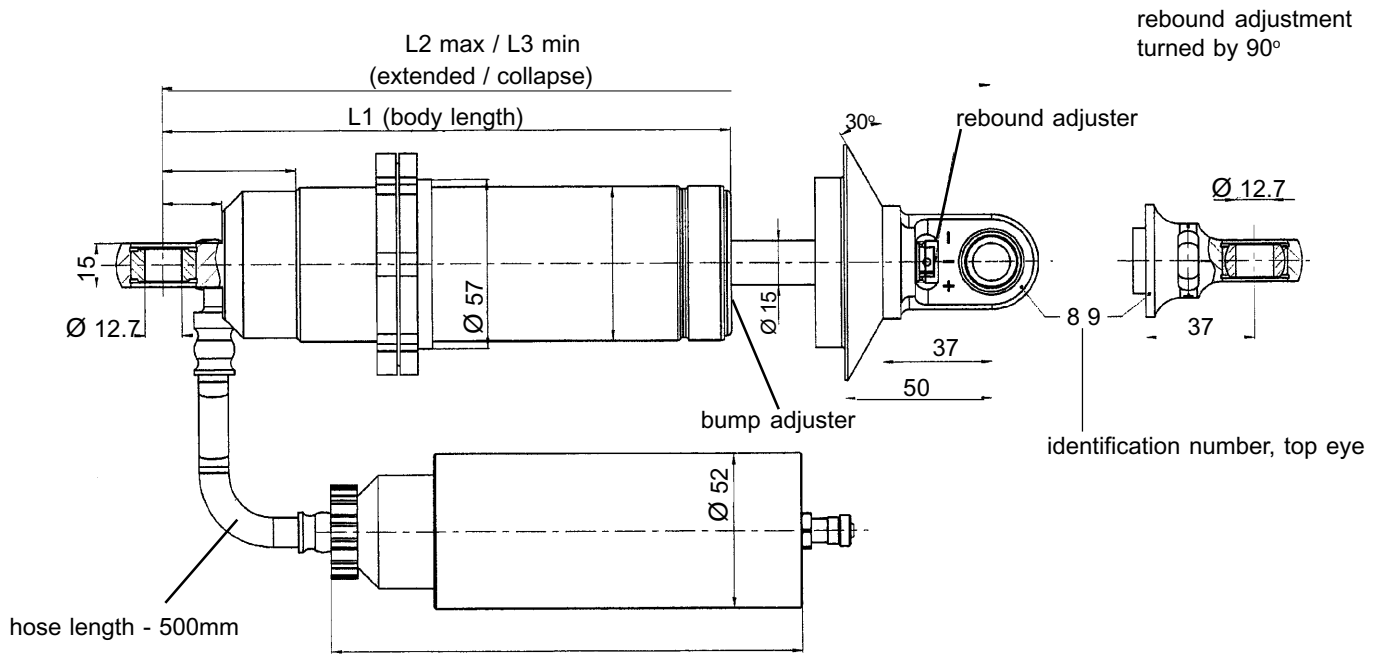
00 1795 999 112

Filling Pressure of the External Compensation Reservoir

The shock absorbers are nitrogen charged to ensure instantly responsive damping under the toughest racing conditions. Checking the gas pressure should be done at 20°C and with the piston rod fully extended. Gas pressures 15 bar \pm 5 bar.

SACHS Racing SP3

Order Example: 88 1700 114 403 - 203 - E - 2 - 8

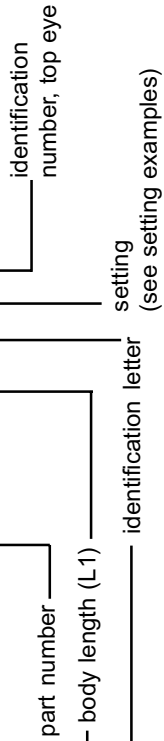


RACING SHOCKS

\varnothing = Diameter
All dimensions in mm

SACHS Racing SP3

Order Example: 88 1700 114 403 - 203 - E - 2 - 8

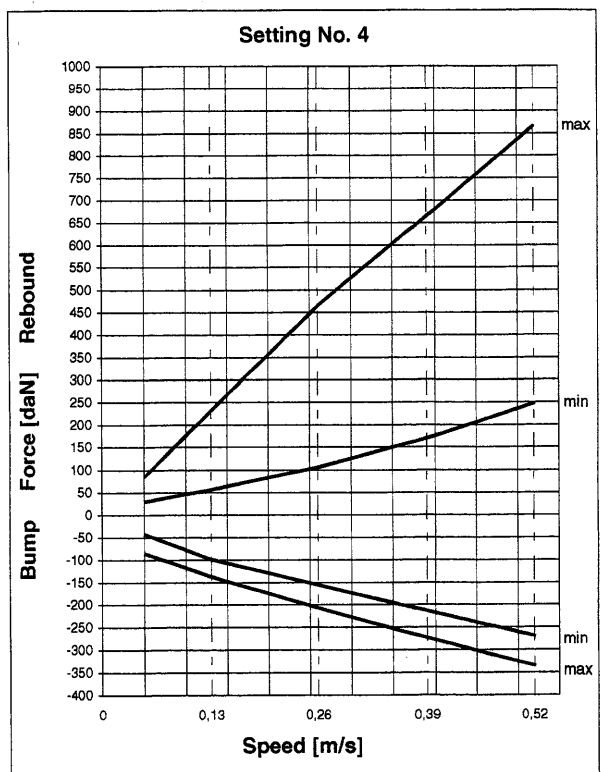
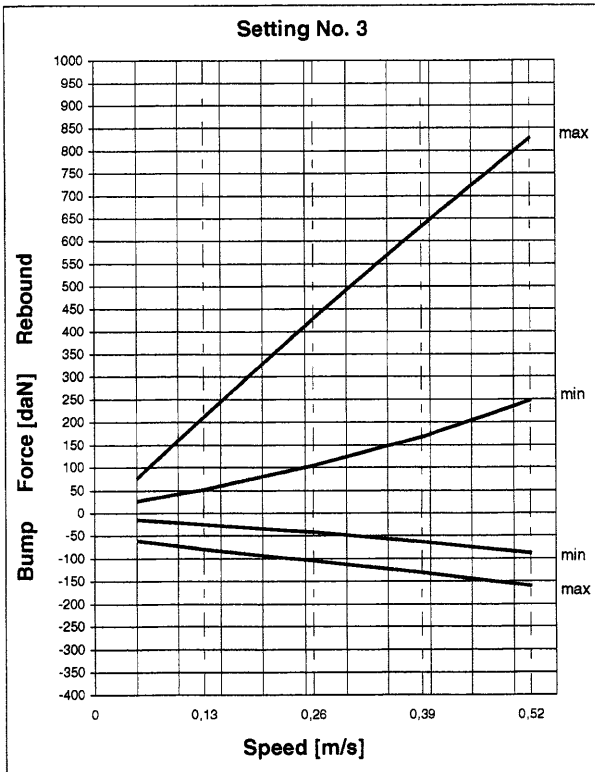
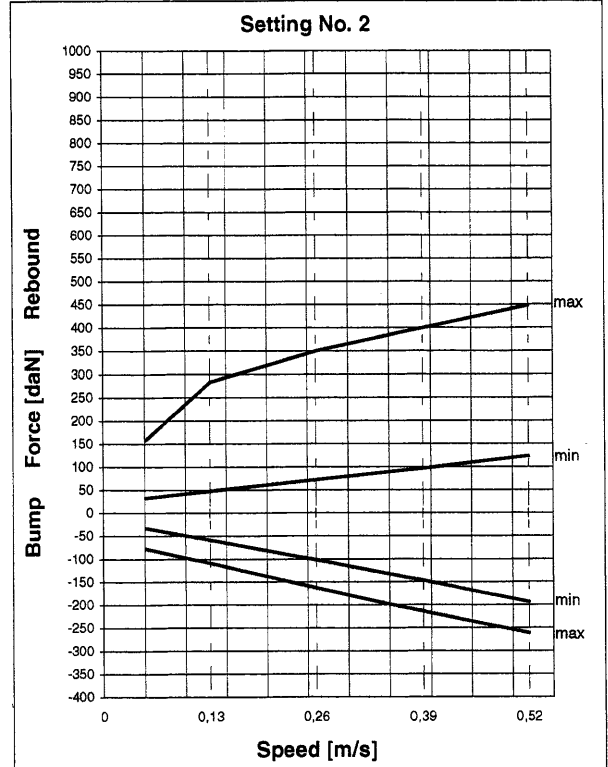
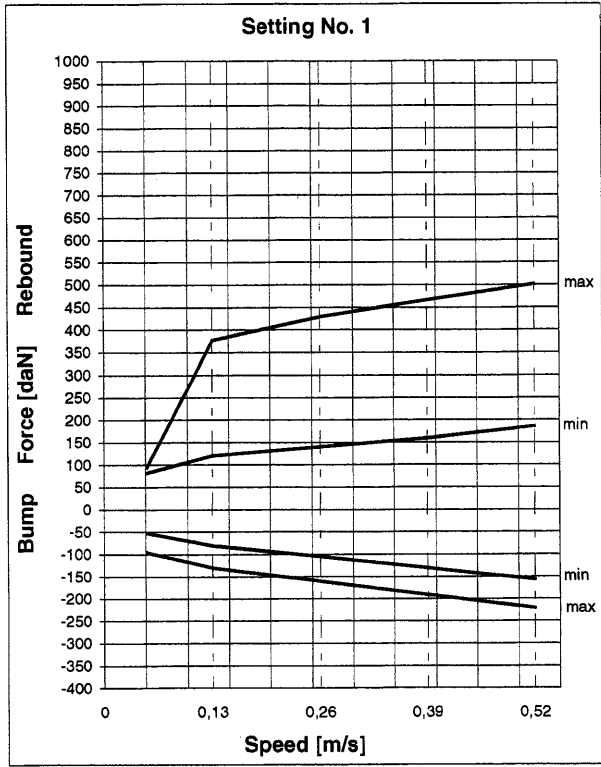


ID Letter	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R	S
Stroke	38	48	58	68	78	88	98	108	118	128	138	148	158	168	178	188	198
L1	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3	L2 L3
143	235 197	245 207	255 217	265 227	275 237	285 247	295 257	305 267	315 277	325 287	335 297	345 307	355 317	365 327	375 337	385 347	395 357
153	207 255	207 265	217 275	227 285	237 295	247 305	257 315	267 325	277 335	287 345	297 355	307 365	317 375	327 385	337 395	347 405	357 415
163	255 217	265 227	275 237	285 247	295 257	305 267	315 277	325 287	335 297	345 307	355 317	365 327	375 337	385 347	395 357	405 367	415 377
173	265 227	275 237	285 247	295 257	305 267	315 277	325 287	335 297	345 307	355 317	365 327	375 337	385 347	395 357	405 367	415 377	425 387
183	275 237	285 247	295 257	305 267	315 277	325 287	335 297	345 307	355 317	365 327	375 337	385 347	395 357	405 367	415 377	425 387	435 397
193	285 247	295 257	305 267	315 277	325 287	335 297	345 307	355 317	365 327	375 337	385 347	395 357	405 367	415 377	425 387	435 397	445 407
203		305 257	315 267	325 277	335 287	345 297	355 307	365 317	375 327	385 337	395 347	405 357	415 367	425 377	435 387	445 397	455 407
213			325 267	335 277	345 287	355 297	365 307	375 317	385 327	395 337	405 347	415 357	425 367	435 377	445 387	455 397	465 407
223				345 277	355 287	365 297	375 307	385 317	395 327	405 337	415 347	425 357	435 367	445 377	455 387	465 397	475 407
233					365 287	375 297	385 307	395 317	405 327	415 337	425 347	435 357	445 367	455 377	465 387	475 397	485 407
243						385 297	395 307	405 317	415 327	425 337	435 347	445 357	455 367	465 377	475 387	485 397	495 407
253							405 307	415 317	425 327	435 337	445 347	455 357	465 367	475 377	485 387	495 397	505 407
263								425 317	435 327	445 337	455 347	465 357	475 367	485 377	495 387	505 397	515 407
273									445 327	455 337	465 347	475 357	485 367	495 377	505 387	515 397	525 407
283										465 337	475 347	485 357	495 367	505 377	515 387	525 397	535 407
293											485 347	495 357	505 367	515 377	525 387	535 397	545 407
303												505 357	515 367	525 377	535 387	545 397	555 407
313													525 367	535 377	545 387	555 397	565 407
323														545 377	555 387	565 397	575 407
333															565 387	575 397	585 407

All dimensions in mm

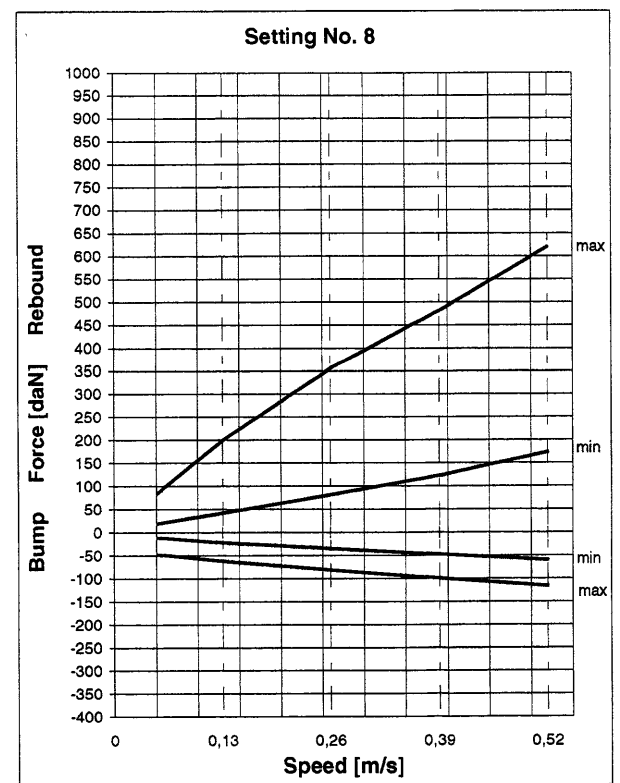
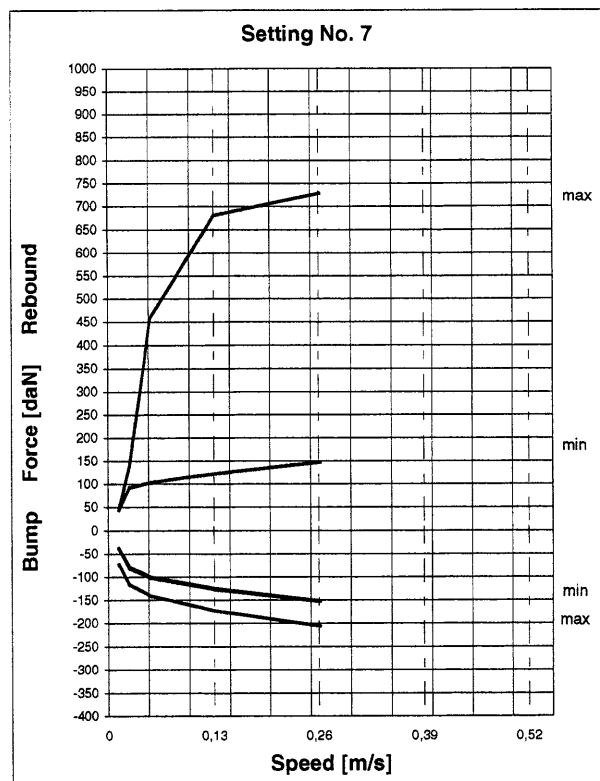
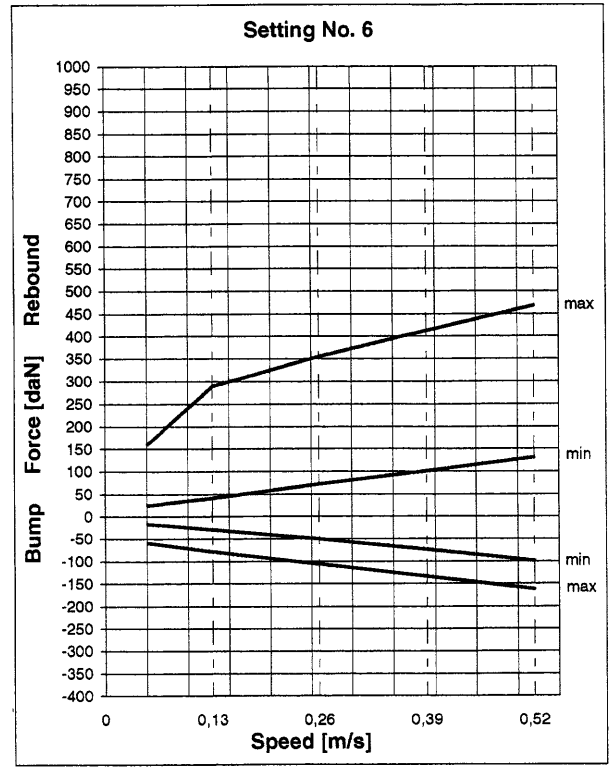
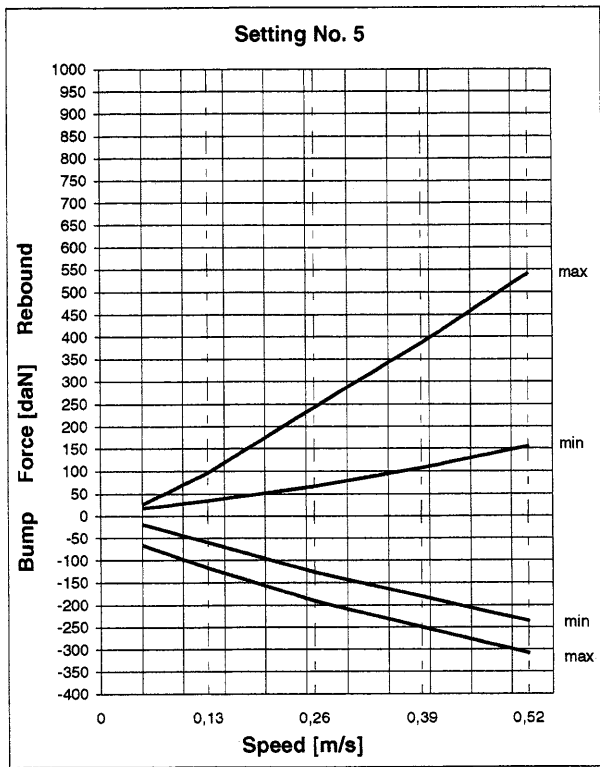
Settings SP3

Please note: These example curves represent Sachs factory settings.



Settings SP3

Please note: These example curves represent Sachs factory settings.

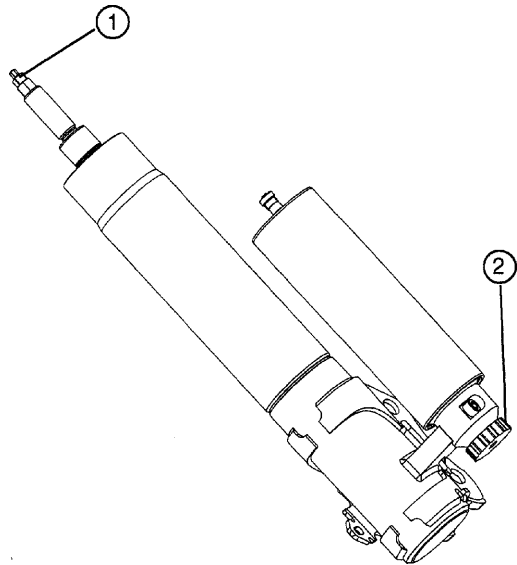


SACHS Racing Strut SPS 4

Adjustable Performance

Technical Features:

- Gas pressurized strut with external compensating reservoir
- Independent mounting position
- Infinitely adjustable rebound on top of the rod ①
- Bump adjustment via a grid system separated in low and high speed ②
- Designed for use with all uniball upper mount-bearing system
- Super strength lightweight \varnothing 25mm hard chromed piston rod
- Low internal friction for instantly responsive damping
- Height adjustable spring seat for use with \varnothing 60mm racing springs
- All part will be delivered in basic setting
- Characteristic performance curves and setting instructions included



Order Number:

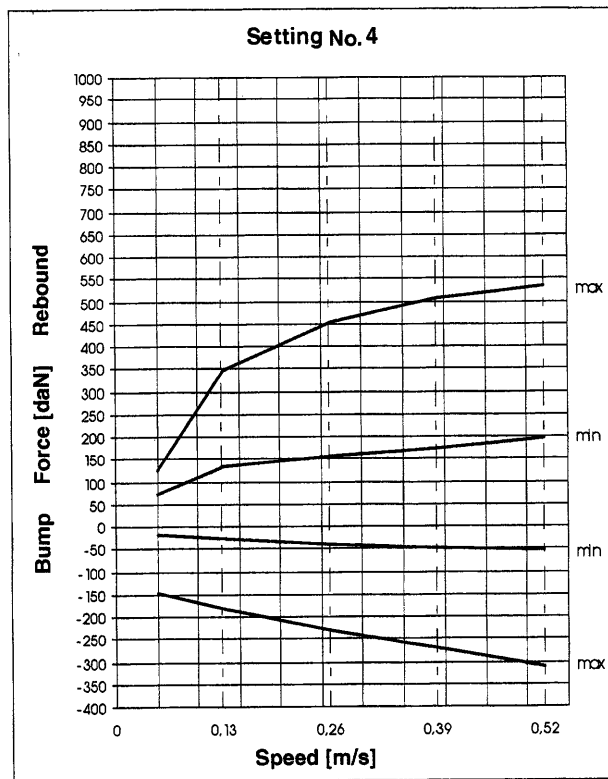
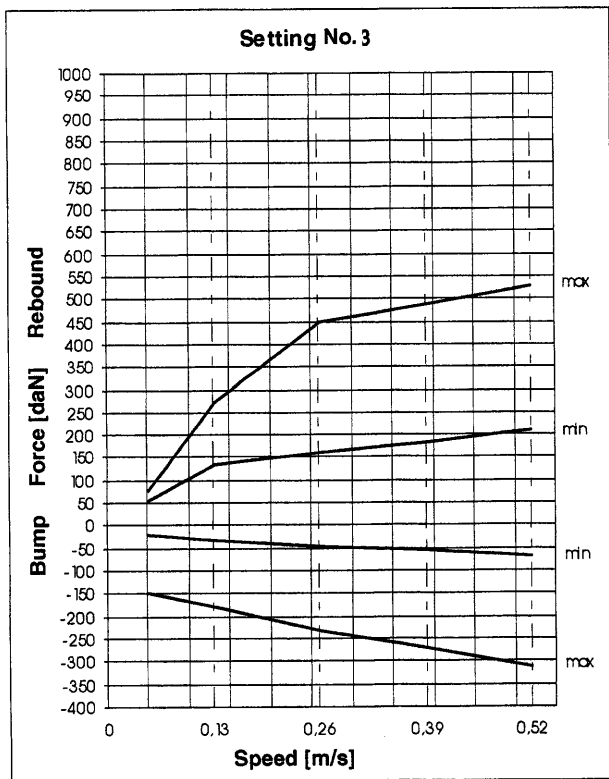
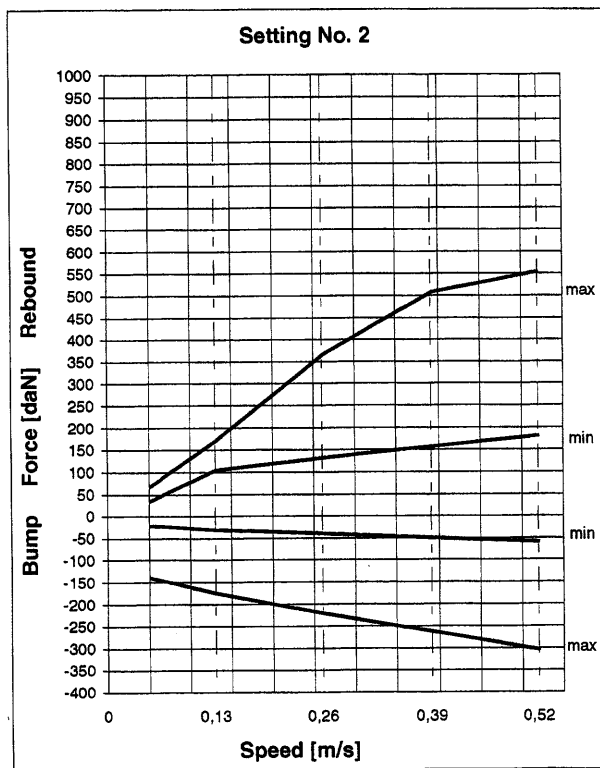
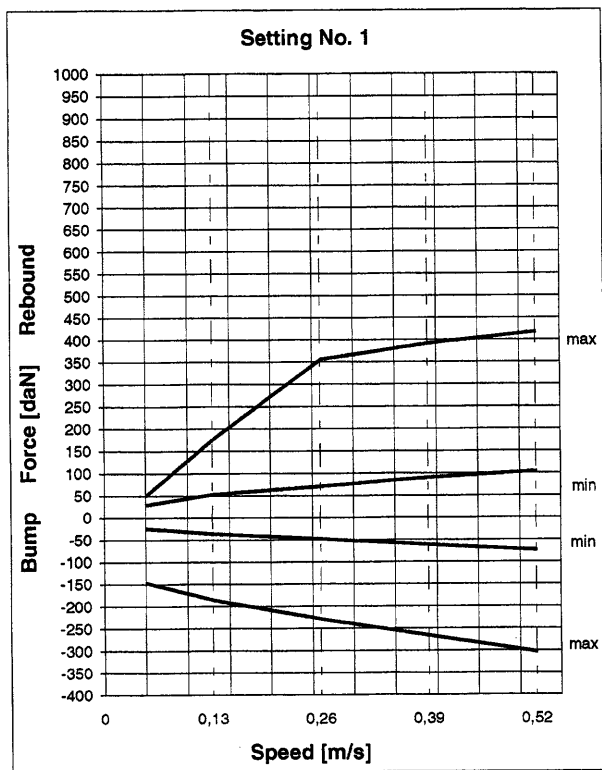
Please see application list on page .

Please note that the SP range is designed for motor sport use and specifications may change without prior notice.

\varnothing = Diameter

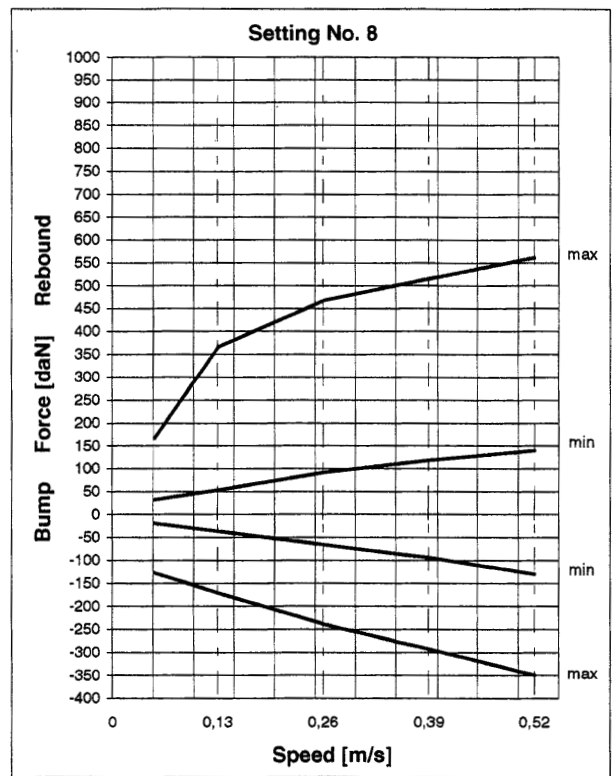
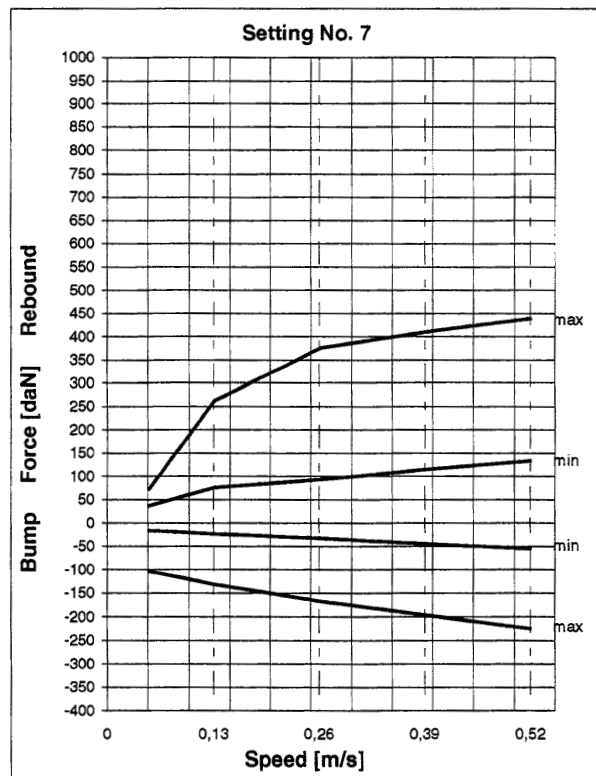
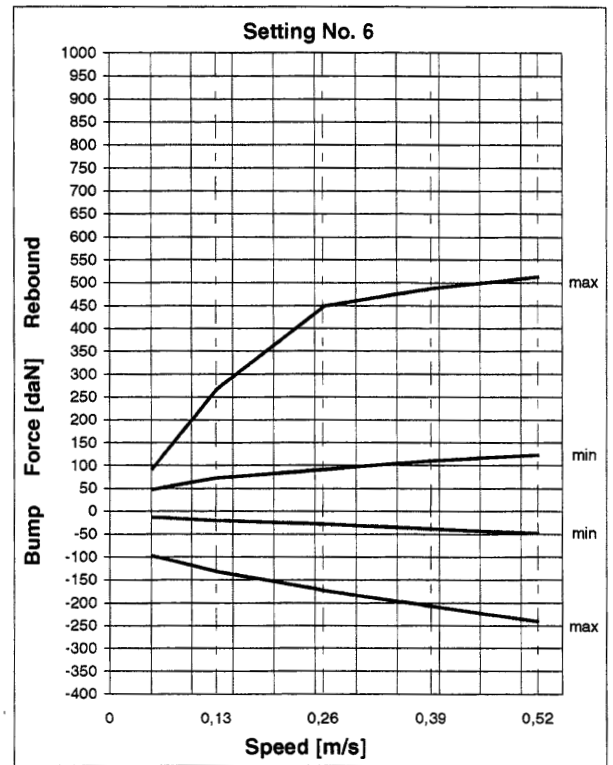
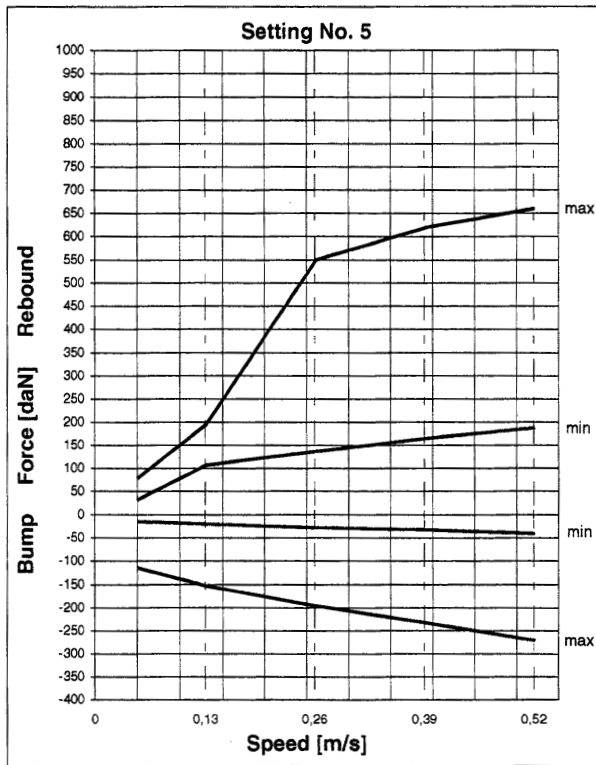
Settings SPS 4

Please note: These example curves represent Sachs factory settings.



Settings SPS 4

Please note: These example curves represent Sachs factory settings.

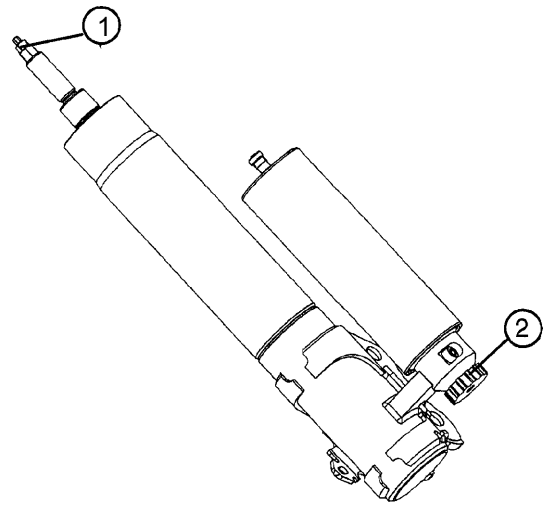


Setting Instructions

SACHS Racing Shock Absorber SPS4

SACHS Racing SPS4 racing shock absorbers are independently adjustable for bump and rebound.

- Rebound setting located on the piston rod ①
- Bump setting located on the external compensation reservoir ②



How to Change the Setting:

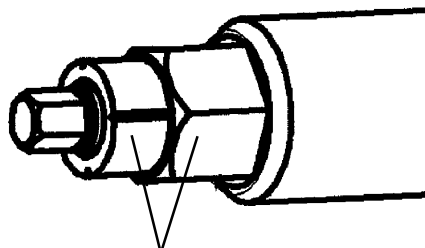
Rebound:

The shock absorbers come with a basic setting. This is identified by a mark at the setting ring. The setting range is shown on the diagram sheet.

Adjustment direction

Harder
(Counter-clockwise)

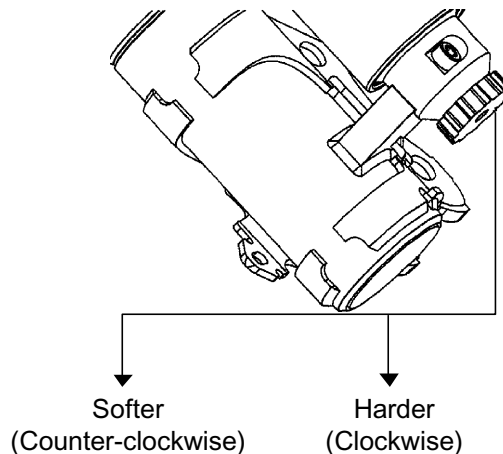
Softer
(clockwise)



Mark for basic setting

Bump:

Bump absorption may be adjusted by index notches at the compensation reservoir. The direction to count the index notches starts from the softest setting (at 0).



Rebound Adjustment Tool:

00 1795 999 179

Gas Filling Tool:

00 1795 999 112

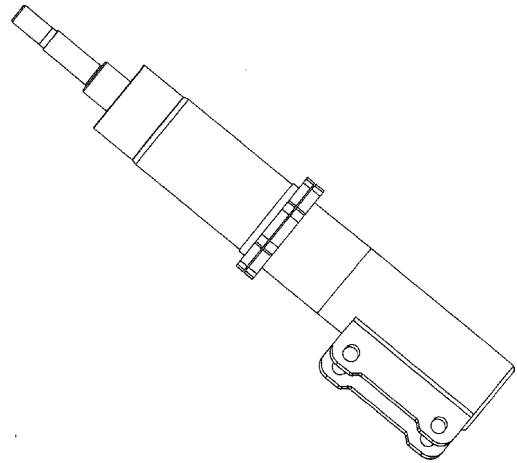
Filling Pressure of the External Compensation Reservoir

The struts are nitrogen charged to ensure instantly responsive damping under the toughest racing conditions. Checking the gas pressure should be done at 20°C and with the piston rod fully extended. Gas pressures 5 bar \pm 1 bar.

SACHS Racing Strut SPS 5

Technical Features:

- Variable tube and extended and compressed lengths
- Shuckle and size and distance of hole can be matched (depending on customer requirements)
- Supplied either gas charged or uncharged to allow specific setting requirements.
- Specification and information sheets included



Designed for Use in:

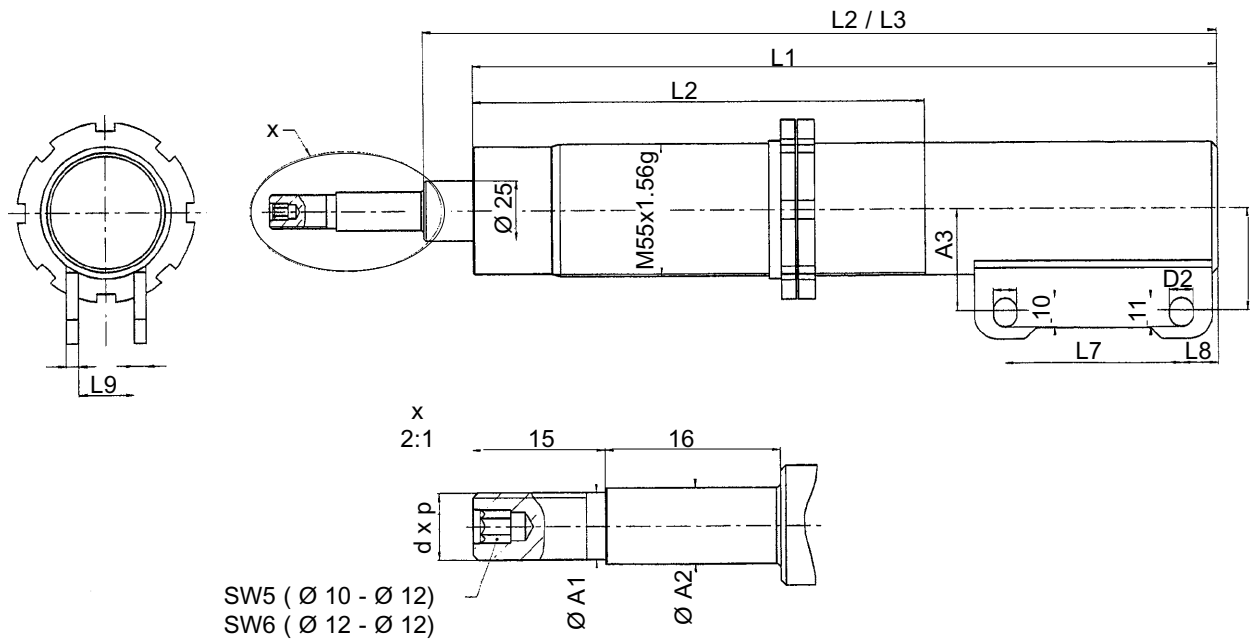
- Rallycross, Salom, Sport, Tuning, and other motor sport events
- Please note that a fully completed specification sheet must accompany your order

Order Number:

88 1500 995 400

Please note that the SP range is designed for motor sport use and specifications may change without prior notice.

SACHS Racing SPS5



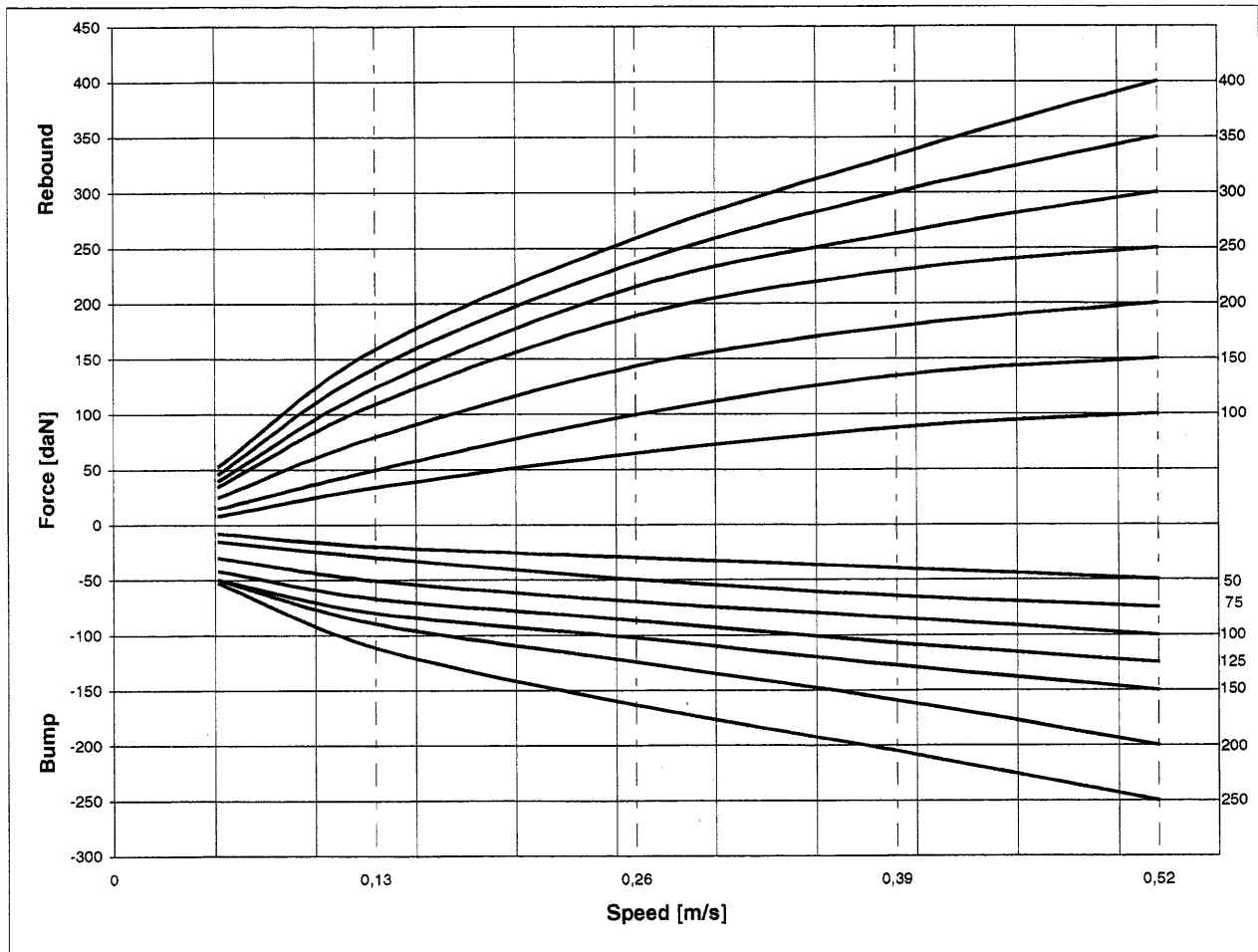
Dimensions:

L1	Body length
L2	Extended length
L3	Collapsed length
L4	Thread length
L5	Bolt length
L6	Step length
L7	Bore distance
L8	Distance from bottom of outer tube to bottom of bore dia
L9	Shackle distance
L10	Long hole length for D1
L11	Long hole length for D2
D1	Bore - Ø top
D2	Bore - Ø bottom
A1	Ø below thread
A2	Ø step if available
A3	Bore distance from D1 to mid-outer tube
A4	Bore distance from D2 to mid-outer tube
dxP	nominal thread - Ø x pitch

Ø = Diameter

Setting Examples

SACHS Racing SPS 5



Available settings for compression- and rebound- damping.

Choose combination from diagram above, i.e.

Bump	Rebound
250 daN	100 daN

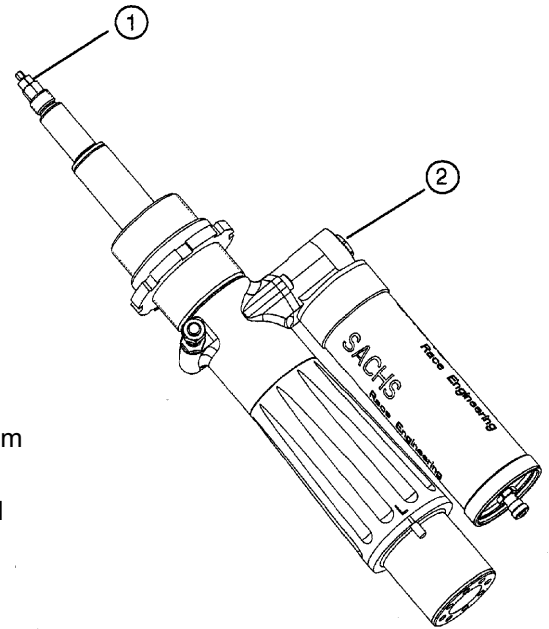
If requested, a special setting is possible.

SACHS Racing Suspension Strut SPS 8

Adjustable Performance

Technical Features:

- Gas pressurized strut with external compensating reservoir
- Independent mounting position
- Infinitely adjustable rebound on top of the rod
- Bump adjustment via a grid system separated in low and high speed
- Designed for use with all uniball upper mount-bearing system
- Super strength, lightweight 25mm hard-chromed piston rod
- Low internal friction for instantly responsive damping
- Infinitely adjustable spring seat for use with 60mm dia. racing springs
- All parts will be delivered in basic setting
- Characteristic performance curves and setting instructions included



Order Number:

Please see application list on page .

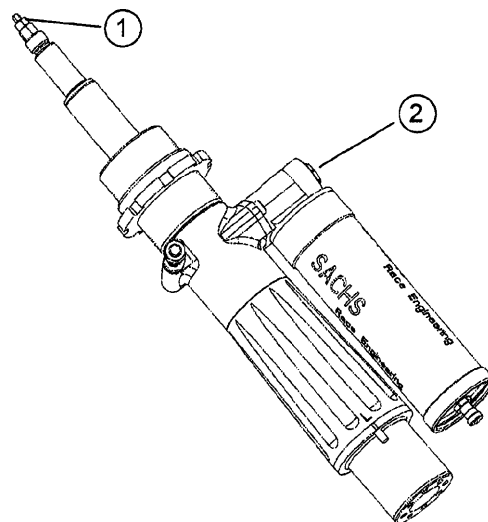
Please note that the SP range is designed for motor sport use and specifications may change without prior notice.

Setting Instructions

SACHS Racing Shock Absorber SPS8

SACHS Racing SPS4 racing shock absorbers are independently adjustable for bump and rebound.

- Rebound setting located on the piston rod ①
- Bump setting located on the external compensation reservoir ②



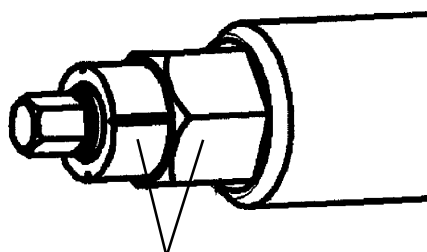
How to Change the Setting:

Rebound:

The shock absorbers come with a basic setting. This is identified by a mark at the setting ring. The setting range is shown on the diagram sheet.

Adjustment direction

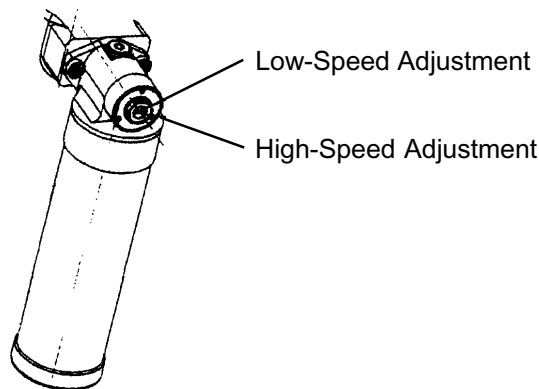
Harder (Counter-clockwise) Softer (clockwise)



Mark for basic setting

Bump:

The low-speed adjustment provides 16 grids (position 1 soft; position 16 hard). The high-speed adjustment provides 11 grids and will be delivered in position 0 (position -5 soft; position +5 hard).



270° / 8 / +3
Rebound / Low-Speed / High-Speed
Bump Bump

Rebound Adjustment Tool:

00 1795 999 179

Gas Filling Tool:

00 1795 999 112

Filling Pressure of the External Compensation Reservoir

The struts are nitrogen charged to ensure instantly responsive damping under the toughest racing conditions. Checking the gas pressure should be done at 20°C and with the piston rod fully extended. Gas pressures 5 bar \pm 1 bar.

SP Series Racing Shocks

Group A **

Order Number	Type
Audi A4 2WD & Quattro	
FA 881700 114 612	SP 3
RA 881700 114 403A	SP 3
VW Golf II/III	
FA 881500 995 166R	SPS 4
FA 881500 995 167L	SPS 4
RA 881700 114 199	SP 3
VW Golf II/III - Rally	
FA 881500 995 173L	SPS 4
FA 881500 995 174R	SPS 4
RA 881700 114 200	SP 3

DTC Series **

Order Number	Type
BMW E36 - DTC	
FA 881500 995 210R	SPS 4
FA 881500 995 211L	SPS 4
RA 881700 114 403B	SP 3
Ford Focus - DTC	
FA 881500 995 364	SPS 8
RA 881700 114 528	Formula
VW Golf II/III - DTC	
FA 881500 995 188R	SPS 4
FA 881500 995 189L	SPS 4
RA 881700 114 199	SP 3

** Group A and DTC Series Racing Shocks are designed for race car applications with custom position points and may not be installed on production vehicles without chassismodification.

Group N

Order Number	Type
BMW E36 - Gr. N	
FA 881500 995 228R	SPS 4
FA 881500 995 229L	SPS 4
RA 881700 114 320	SP 3
BMW E46 - Gr. N	
FA 881500 995 396R	SPS 4
FA 881500 995 395L	SPS 4
RA 881700 114 587	SP 3
VW Golf IV - Gr. N	
FA 881500 995 235	SPS 4
RA 881700 114 299	SP 3

Order Number	Type
Porsche 996 - GT3 Clubsport	
FA 881500 995 546	SPS 8
RA 881700 114 785	SP 3
Volvo S40	
FA 881500 995 272	SPS 4
FA 881500 995 273	SPS 4
RA 881700 114 298	SP 3

Abbreviations

FA	Front Axle
RA	Rear Axle
R	Right
L	Left