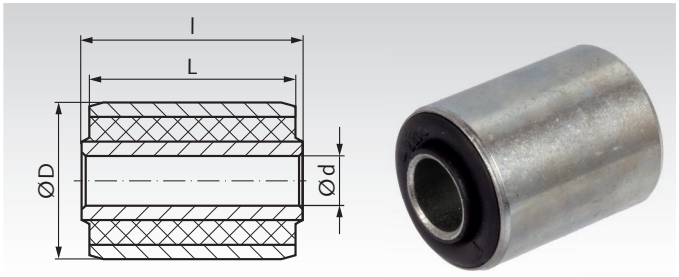
Heavy-Duty Steel Rubber Bushes PHO-V, Vulcanized Version

Material: Metal Parts: Steel, zinc-plated.
Elastomer: Natural rubber, hardness 55° Shore A.

Version: With medium-hard rubber, vulcanized at the inner bush and the outer bush. Good flexibility. Suitable for medium radial load and high axial load and high torsion.

Fit: Up to external diameter 30mm: mounting hole H11 / H12. From external diameter 34mm: mounting hole H13.

Temperature resistant up to 80°C.



Ordering Details: e.g.: Product No. 685 081 617V, Heavy Duty Bush PHO-V, 8 mm

Product No.	Internal Ø d mm	External Ø D mm	Length of Internal Bush l mm	Length of External Bush L mm	Weight g
685 081 617V	$8^{+0,15}$	$16^{+0,1}$	$17^{\pm0,1}$	$15^{\pm0,2}$	11
685 082 015V	$8^{+0,15}$	$20^{+0,1}$	$17^{\pm0,1}$	$15^{\pm0,2}$	18
685 082 210V	$8^{+0,15}$	$22^{+0,1}$	$16^{\pm0,1}$	$10^{\pm0,2}$	16
685 101 818V	$10^{+0,15}$	$18^{+0,1}$	$20^{\pm0,1}$	$18^{\pm0,3}$	17
685 102 230V	$10^{+0,15}$	$22^{+0,1}$	$33^{\pm0,1}$	$30^{\pm0,3}$	48
685 102 414V	$10^{+0,15}$	$24^{+0,1}$	$17^{\pm0,1}$	$14^{\pm0,2}$	26
685 102 520V	$10^{+0,15}$	$25^{+0,1}$	$24^{\pm0,1}$	$20^{\pm0,3}$	44
685 122 435V	$12^{+0,15}$	$24^{+0,1}$	$38^{\pm0,1}$	$35^{\pm0,3}$	60
685 122 525V	$12^{+0,15}$	$25^{+0,1}$	$28^{\pm0,1}$	$25^{\pm0,3}$	45
685 122 618V	$12^{+0,15}$	$26^{+0,1}$	$24^{\pm0,1}$	$18^{\pm0,3}$	37
685 122 632V	$12^{+0,15}$	$26^{+0,1}$	$36^{\pm0,1}$	$32^{\pm0,3}$	56
685 133 040V	$13^{+0,15}$	$30^{+0,1}$	$40^{\pm0,1}$	$40^{\pm0,3}$	79
685 143 067V	$14^{+0,15}$	$30^{+0,1}$	$76^{\pm0,1}$	$67^{\pm0,3}$	155
685 163 216V	$16^{+0,2}$	$32^{+0,15}$	$17^{\pm0,1}$	$16^{\pm0,3}$	38
685 163 225V	$16^{+0,2}$	$32^{+0,15}$	$28^{\pm0,1}$	$25^{\pm0,3}$	72
685 163 250V	$16^{+0,2}$	$32^{+0,15}$	$54^{\pm0,1}$	$50^{\pm0,3}$	120
685 164 032V	$16^{+0,2}$	$40^{+0,15}$	$38^{\pm0,1}$	$32^{\pm0,3}$	120
685 183 432V	$18^{+0,3}$	$34^{+0,15}$	$36^{\pm0,1}$	$32^{\pm0,3}$	94
685 204 555V	$20^{+0,3}$	$45^{+0,15}$	$62,5^{\pm0,1}$	$55^{\pm0,3}$	255
685 204 559V	$20^{+0,3}$	$45^{+0,15}$	$62,5^{\pm0,1}$	$59,5^{\pm0,3}$	258
685 244 290V	$24^{+0,3}$	$42^{+0,15}$	$96^{\pm0,1}$	$90^{\pm0,3}$	645
685 255 065V	$25^{+0,3}$	$50^{+0,15}$	$67,5^{\pm0,1}$	$65,5^{\pm0,3}$	370
685 255 589V	$25^{+0,3}$	$55^{+0,15}$	$93,5^{\pm0,1}$	$89,5^{\pm0,3}$	677
685 264 040V	$26^{+0,3}$	$40^{+0,15}$	$45^{\pm0,1}$	$40^{\pm0,3}$	220
685 305 589V	$30^{+0,4}$	$55^{+0,15}$	$94^{\pm0,1}$	$89,5^{\pm0,3}$	622
685 325 650V	$32^{+0,4}$	$56^{+0,15}$	$55^{\pm0,1}$	$50^{\pm0,3}$	340
685 407 557V	$40^{+0,4}$	$75^{+0,20}$	$70^{\pm0,1}$	$57^{\pm0,3}$	759
685 507 060V	$50^{+0,4}$	$70^{+0,15}$	$60^{\pm0,1}$	$60^{\pm0,3}$	494
685 508 095V	$50^{+0,4}$	$80^{+0,20}$	$100^{\pm0,1}$	$95^{\pm0,3}$	1020

General

These premium rubber-metal, heavy-duty bushes feature a high flexibility with good vibration damping. The medium-hard rubber allows a medium-high radial load. The high axial load and large permissible torsional deformation is achieved because the rubber parts are firmly attached to the metal parts. The bushes withstand radial, axial and torsional load, without the rubber moving in relation to the metal parts. Minimal gimbal offset (tilting) of the axis of the inner tube in relation to the outer tube, or vice versa, is possible. The stiffness depends on the strength and length of the rubber.

Can be used in machine building or car manufacture as elastic joints, which at permanent operation have to withstand a deflection of approx. ±15° and have to absorb higher radial forces. During deflection a recoiling moment occurs, which is proportional to the torsional angle, as the rubber cannot move in relation to the metal. The bushes are completely maintenance free, silent and vibration isolating along with a high fatigue strength. Spring element and joint are combined in one single element.

The grade of rubber used is not oil proof. An operating temperature of max. 80° must not be exceeded, otherwise the service life is shortened. The bushes are usually fixed to the outer tube by pressfit.The inner tube can, e.g., be fixed by applying pressure on the front face. In this case the bolt running through the bore of the bush presses the counter bearing against the front face of the inner tube.