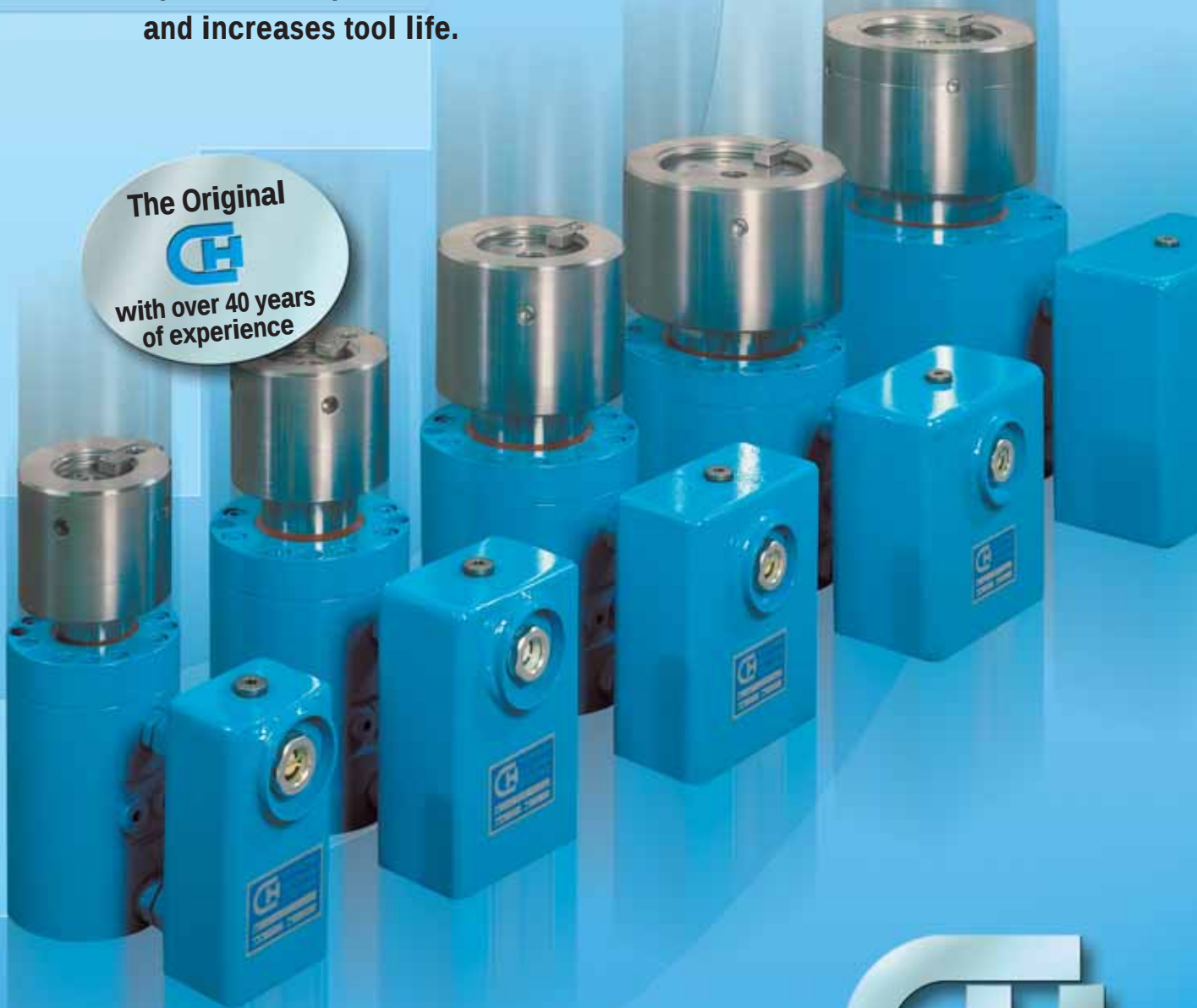


BLANKING STROKE DAMPER FOR PRESSES

**Dampens noise, reduces vibrations,
protects the press
and increases tool life.**



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HYLATECHNIK



HYLATECHNIK BLANKING STROKE DAMPERS Prevents the Adverse Effects of Reverse Loads

At the instant of breakthrough during blanking, the press and dies are subjected to severe stress. Sooner or later this results in damage to bearings, seals, gibways, etc. and to increased die wear, or even punch breakage.

With the HYLATECHNIK BLANKING STROKE DAMPERS

- the life of the press and dies are substantially increased.
- Noise and vibration are significantly reduced.

Operating Principle

In the starting position the damper piston is fully extracted. The oil compartment of the cylinder is filled with oil. Force is applied to the piston by the press ram, and the oil is expelled through one orifice or more. Before the blanking operation the ram descends at normal speed and the orifice inside the damper causes only a low pressure rise inside the oil compartment. This adds only a relatively small load to the

press. On breakthrough of the blanking punch the ram speed increases to a multiple value. The flow resistance across the orifice rises, causing high pressure inside the cylinder – the damping effect is produced. After the downward force has been removed, the piston of the damper returns to its starting position. The oil compartment is again filled with oil through a non-return valve.

HYLATECHNIK BLANKING STROKE DAMPERS are available in three versions. Where required, space saving or specially shaped non-standard versions (also with longer or shorter stroke) are supplied. Your specific enquiries are welcomed.



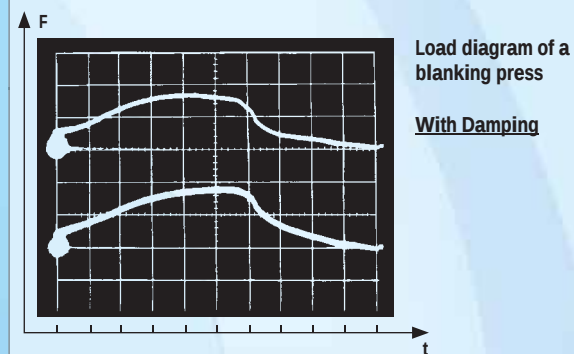
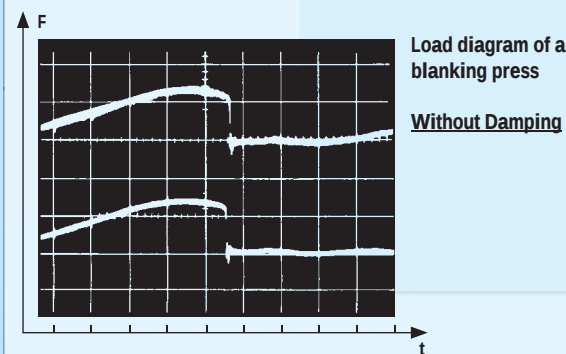
Version SHYC-H
with adjustment nut (optional)



Version SHYC-S
without adjusting nut



Version SHYC-M
without adjusting nut



Damper Type	A	B	C	D	E	F	G	H	J	K	L	M	N	R	PA	T	S	Stroke	Take-up force kN	max. force kN
SHYC-10-10	140	75	65	30	14	45	80	30	65	42	190	M 6 x 120	70	20	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$	10	100	100
SHYC-20-10	175	100	90	45	16	66	111	30	75	60	215	M 6 x 140	80	24	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{3}{8}$	10	200	200
SHYC-35-15	195	125	100	60	20	61	117	30	80	76	250	M 8 x 160	110	26	G $\frac{1}{4}$	G $\frac{1}{2}$	G $\frac{3}{8}$	15	350	350
SHYC-50-15	195	150	130	80	20	61	117	30	100	92	280	M 8 x 160	140	28	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	15	500	600
SHYC-70-15	195	170	170	100	20	61	117	30	105	108	320	M 8 x 160	160	28	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	15	700	800
SHYC-100-15	230	230	180	125	24	65	142	30	120	148	395	M 10 x 190	200	30	G $\frac{1}{4}$	G $\frac{1}{2}$	G $\frac{1}{2}$	15	1000	1500
SHYC-150-15	240	260	238	150	24	65	142	30	160	166	445	M 10 x 190	220	30	G $\frac{1}{4}$	G $\frac{1}{2}$	G $\frac{1}{2}$	15	1500	1800
SHYC-200-15	245	300	238	180	25	70	147	30	160	192	505	M 10 x 200	260	30	G $\frac{1}{4}$	G $\frac{1}{2}$	G $\frac{1}{2}$	15	2000	2500
SHYC-300-15	275	370	295	220	40	95	172	30	180	240	575	M 12 x 220	260	30	G $\frac{1}{4}$	G $\frac{1}{2}$	G1	15	3000	3800
SHYC-400-20	320	450	-	250	40	110	200	-	-	300	715	M 12 x 250	400	30	G $\frac{1}{4}$	G1	G1	20	4000	5000
SHYC-500-20	340	490	-	260	40	120	220	-	-	320	755	M 16 x 280	400	30	G $\frac{1}{4}$	G1	G1	20	5000	6000
SHYC-750-20	400	600	-	300	40	145	270	-	-	380	-	M 16 x 340	-	30	G $\frac{1}{4}$	G1 $\frac{1}{4}$	G1 $\frac{1}{4}$	20	7500	8000

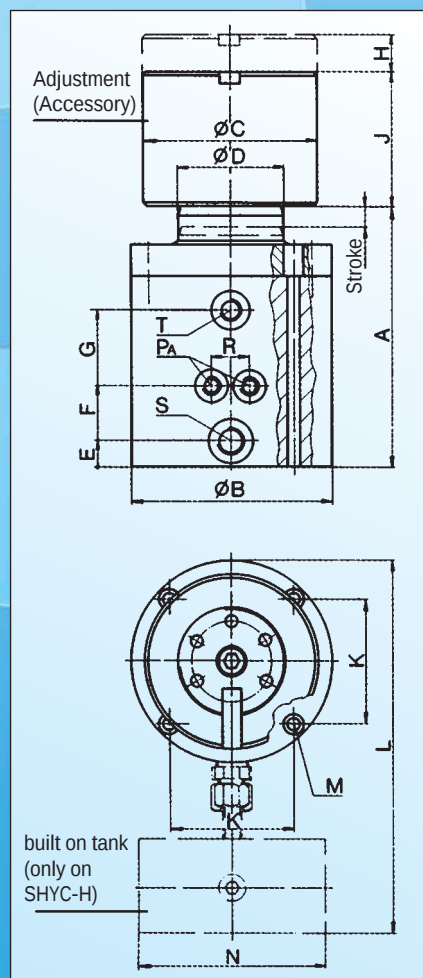
Key to Type Coding

SHYC - X XXX - XX

- Stroke length
- Damping capacity = force taken up in tons force (1 ton force = approx. 10 kN)
- H - Damper for hydr. presses (with built on tank)
- S - Damper for hydr. presses (for feeding with hydr. oil from the press)
- M - Damper for mechanical presses (for feeding with hydraulic oil from external supply tanks)

Ports on type S and M

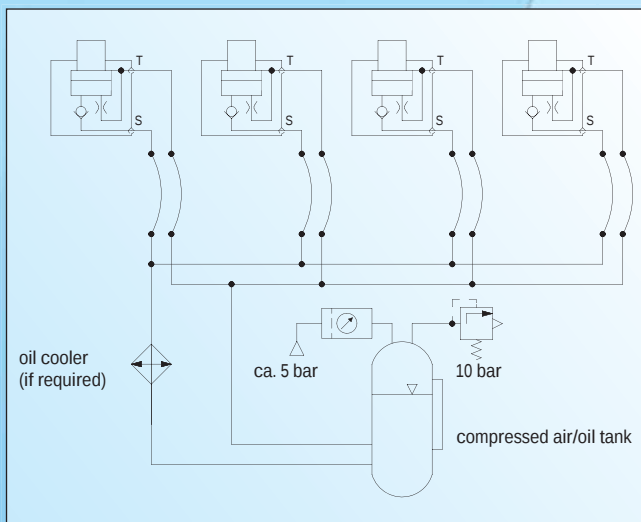
- S = supply line
- T = return line to tank
- PA = pressure compensation (connect only when necessary)



Installation, set-up

The Blanking Stroke Dampers are installed symmetrically around the centre of force and are prevented from moving out of position (the cylinder housing has through-holes for mounting screws). The overall height of the damper has to be set in such a way that it comes into contact with the slide just before the breakthrough occurs. To compensate

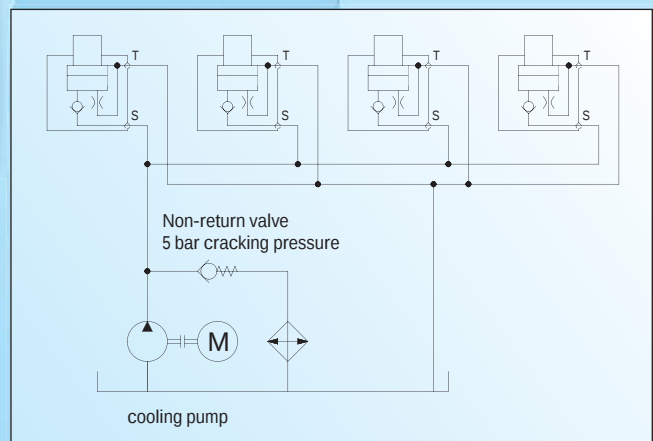
for large differences in height, solid, machined spacing blocks are placed under the damping cylinders. The optional adjusting nut allows a fine adjustment within 30 mm. Each set of Blanking Stroke Dampers are equipped with the orifice combination specially selected for the application. If it becomes necessary to alter the damping effect, the orifice can easily be changed.



Recommendation for connecting SHYC-M to an external supply tank

Use low-pressure (30 bar) hydraulic tubing or flexible hose. The connection should be kept as short as possible.

Never use quick acting couplings!



Recommendation for connecting SHYC-S to a press hydraulic system (supply pressure min. 5 bar, max. 50 bar)

HYLATECHNIK – product range



**Parallel
Lifting Device**



Hydraulic Cushion Systems



Hydraulic Presses



Hydraulic Shears

Other Products / Services

- die splitting and turnover device
- hydraulic parallelism control for presses
- safety-upgrades and -inspection of presses
- modernization of all makes of hydraulic presses
- machining: turning up to $\varnothing 800 \times 2000$ mm
drilling/milling up to 4000×2000 mm

Our experts are always available for advice or for demonstrating our equipment.



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